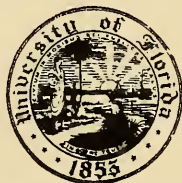


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A
NEW APPROACH
TO
PHILOSOPHY

By
CALE YOUNG RICE

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FOREWORD

Sometime before his death last January my brother, by will, named me his literary executive. Among other instructions he directed me to prepare for publication the manuscript of this volume, which—too hastily in my judgment—he had whipped into shape for delivery at the University of Louisville, and thereafter, mainly for reasons of health, had not carefully revised. Much of the material herein was written at my summer home, Nakanawa, where he and his wife, Alice Hegan, the novelist, for many years spent the months of July and August; so almost from the inception of his plan I had the privilege of discussing with him the broad outlines as well as many details. I lay no claim whatever to anything beyond participation in such discussions as always clarify an issue, and minor criticisms of phraseology that, I feared, might evoke misconceptions.

Occasionally he expressed discouragement, alleging that professional philosophers would smirk at a poet's attempt to open new vistas in philosophy. At such times I seconded the urgings of others, realizing that sheer good fortune had enabled him to discover a new vein of thought, the opening of which should yield golden returns.

As he was not one to ask odds, I crave for him no posthumous favor at the hands of critics, merely that judicial consideration which an unhackneyed thesis should receive from the open-minded.

LABAN LACY RICE.

Cumberland University
Lebanon, Tennessee

PREFACE

In turning from the field of literature to that of Philosophy doubtless I shall be asked for passport and credentials. The book I am offering must serve as the former—though I should offer it hesitantly unless convinced that it presents a new philosophical direction. As for credentials, let me say that when young I took degrees in Philosophy under James, Royce, and Santayana; that I taught philosophical courses for a year; and that unceasingly through the years philosophical problems have intrigued me.

The basic assumption of my argument is that we can have little hope of answering the questions of Psychology, Logic, Ethics, and Aesthetics rightly until we obtain a right theory of Ontology. As the ontological theory I offer seems to me the only one our experience can and does validate, in the light of it and as a test of it I have ventured to examine some of Philosophy's other fundamental problems.

Whether I have observed all the amenities of philosophical discussion, I do not know. However, that will not matter if what I have to say is important and if it is said with simplicity and clarity. What cannot be denied is that Philosophy today is in dire need of a clarifying push out of the muddle which causes many sensible people to refuse, mistakenly of course, to take it seriously.

These six chapters were given as a course of lectures at the University of Louisville. That they will be attacked, whether right or wrong, I am aware; for nothing is dearer to a thinker than

the basic creed upon which he has built the superstructure of his thinking and living. This is as it should be provided we realize that a lack of agreement upon fundamental philosophical questions is not merely an academic matter, but one that has had a profoundly deleterious effect on civilization.

With becoming modesty I offer this "New Approach" asking only that, with personal bias and prejudice suppressed, its thesis be examined on merit. If there is truth within these pages, it will prevail—ultimately at least. If error, the philosophical morgue sooner or later will establish its rightful claim. As a pupil of the fair-minded, truth-loving James I ask no odds.

CALE YOUNG RICE.

Louisville, Kentucky

January 15, 1943

CHAPTER I

A NEW APPROACH TO ONTOLOGY

If it is true, as Professor Bertrand Russell says, that no two philosophers ever agree, the trouble probably lies in the conflicting answers given to the fundamental problem of Philosophy, "the nature of ultimate Reality." So diverse have been these answers through the centuries that many thinkers have come to the conclusion that the waters of philosophical speculation are entirely too muddy for sensible people to plunge into.

While this conclusion is natural, it is defeatist, hence foredoomed; for no power of heaven or earth can prevent men from asking ultimate questions. Also, I am persuaded, it is a conclusion which results in the acceptance by many philosophers of three assumptions that are fundamentally false. These are, first, that there is a single ultimate Reality from which the universe has sprung; second, that our human minds are too frail, finite, and fallible to know that Reality; and third, that only the Cosmic Mind of God can know it, since for Him there can be no mystery whatever.

As I believe a base for the establishment of a new approach to Philosophy is not possible until the falsity of these assumptions is shown, I shall examine them here, taking the third first. But in doing so one indubitable fact concerning mysteries in general must be remembered: namely, that of all the mysteries troubling us the greatest is that anything exists at all.

For our human minds that fact is at once accepted. But that it is equally true for any conceivable mind, that of God included, a moment's thought should convince us. For God's existence, to Him, must be as mysterious as our existence, or the existence of anything else, is to us. No omniscience with which He can conceivably be endowed can possibly obviate that truth; no belief that *He alone was* in the beginning. In fact, it holds whether we believe that He *created* the universe of time, space, and matter out of Himself, or that they existed together with Him from eternity.

However, this fundamental mystery is not the only one that limits all minds without exception. For unless we are willing to join the camp of the Idealists and adopt the creed that the universe of time, space, mind, and matter consists of mind-stuff only, there is another mystery as baffling—one which every new and larger telescope makes more so. It is that unless the infinities of time, space, mind, and matter *were* created out of God's cosmic mind-stuff, they must be as mysterious to Him as to us. And if that be true, it is reasonable to assert that the Cosmic Mind's ways of knowing, in so far as the existence of time, space, mind, and matter is concerned, are not different from our own; in other words, that God apprehends them somehow as we do. Consequently, the falseness of the second assumption, that our finite minds cannot know ultimate Reality, becomes somewhat manifest. For if God apprehends the existence of the universe as we do, our minds may

be immeasurably more limited in extent than His, but we probably can know any "ultimate Reality" He knows.

Of the second false assumption, that of our inability to know the one ultimate Reality, we can also say that it rests squarely on the truth or falsity of the first, which avers that a single ultimate Reality exists. For if no such single Reality exists, the second assumption, of our being unable to know it, is of no consequence. Therefore, the possibility of a new base for the approach to Philosophy seems to depend mainly upon discrediting the first assumption. And this I shall attempt to do, but somewhat indirectly and personally, following a partial consideration of another question, that of freedom of the will.

As we know, late Nineteenth Century Science, under the influence of Darwin's theory of Evolution, was aggressively materialistic and dominant. Its god was the law of causation, absolute in all phenomena. Modern Quantum Physics with its doctrine of "free energy" had not come to trouble the waters for believers in total determinism. Then as now it seemed to me impossible to accept either the law of absolute causation or the doctrine of absolute free will which opposed it. This supposedly God-given free will, which would permit us to choose Heaven or Hell, seemed but a disguised determinism. If God *could* give free will, which seemed impossible, He would be giving what He could not escape responsibility for, so would be predestining us in spite of Himself. Being vitalistically inclined, I dimly sus-

pected what later the Quantum theory seemed to imply for Philosophy; namely, that if any freedom of will exists, it is not something given us, but something inherent in the nature of things, as in a later chapter I shall attempt to show.

Also it seemed to me that if the voice of experience is to count, we are both bound and free; that our sense of freedom is countered by the indubitable powers of heredity and environment. Moreover, I came to believe that this dualistic control of human phenomena extended further; that it applied to all phenomena, and that the universe should be interpreted accordingly.

In the psychological laboratory at Harvard Professor James one day made some mention of the matter. He had just been discussing with a seminar class our seeming ability to tap deeper than ordinary levels of consciousness and strength—a theory later presented in *The Varieties of Religious Experience*. In his *Principles of Psychology* he had accepted, somewhat tentatively, a belief in free will. For as a young man, his biographers tell us, he had fallen into a state of “phobic panic” and despair, until he read Renouvier; then accepting the doctrine of free will he had written in his diary, “My first act of free will shall be to believe in free will”; a naive choice, which helped for the time to dissipate his despondency, and which doubtless was the germ of his later famous essay, “The Will to Believe.”

More blunderingly than is related here a member of the seminar class said, “But, Professor James, some of us fail to see how absolute free

will is conceivable. How is it possible, for instance, to assert that at any moment of life, we can, without decisive influence or compulsion, choose any course, good or evil, we please? Such a choice is not only psychologically impossible, but to make it we should have to divest ourselves of personal character and experience. In the act, therefore, we should become mere abstractions emptied of ourselves, and our supposed freedom would be destitute of any worth or dignity whatever."

No doubt Professor James was at the time changing to his later belief in a free will more in correspondence with Darwin's theory of the "spontaneous variation of species." Doubtless, too, he was aware that advocacy of absolute free will was hardly consistent with his attacks on a metaphysical Absolute, with which we are immediately concerned here. The result of the discussion, for me at least, was the emerging belief many philosophers hold today: that the question involved is not one of absolute free will but rather of what kind and degree of freedom we possess at any particular moment. With no degree of freedom, or of any developmental force tantamount to it, Organic Evolution manifestly could not mean growth and progress, and we should have to admit once and for all that we are mere puppets created by Chance (and pulled by its strings) in a play without meaning, and upon a stage destitute of real truth and validity.

The Calvinistic force of religious determinism had at that time begun somewhat to wane, as had

that of scientific determinism. Today the latter, as Materialism, is largely in eclipse, more perhaps because of the so-called "dematerialization" of the atom at the hands of Relativist Physics than because of philosophic and religious attacks upon it. Like Absolute Idealism, Materialism has been found wanting as an ultimate explanation. Absolute Monism, an abstraction from both, though both are now seen to be monistic, seemed to have the concrete value of neither.

I was Idealistic in believing that Mind—some degree of it—is immanent in all Nature, but Materialistic in disbelieving that Mind had "created" Nature or was ultimately identical with it. More and more I was convinced that the universe is psychical as well as physical, and that far from being ultimately lifeless, inorganic, and unconscious, it is organic, alive, and in some degree conscious throughout.

That it is possible to *prove* that Mind is in all things, I did not delude myself into believing. I was but making a choice between two difficult decisions, with the evidence only partly in. Mr. A. J. Balfour had ingeniously called attention to the fact that all our faiths are based on one faith—a belief that we are capable of judging truth. So in facing the question of how all the "marvels" of creation came into being, my choice must lie between two unproved and almost equally unprovable assertions: that Mind is responsible for these marvels, or that Chance is. I say almost equally unprovable. For while there is a bare possibility that our inner experience and outer

explorations may afford strong evidence that Mind is in all such marvels, there is no possibility of proving that Chance began a process which, under the law of causation, has produced all the miraculous forms of phenomena we know, mind included.

The problem is supremely exciting for those who are philosophically inclined; and the choice of Mind, or Life and Mind, not Chance, as the creative organizer of phenomena, was for me a stimulating step toward formulating the conception to be here offered.

Mystics and poets through the centuries had avowed that they had experienced this "creative Mind," this "Divinity," this "immediate presence of God" within themselves. Great creative geniuses in every field also had seemed to tap some such Consciousness for their conceptions. Certain "psychic phenomena," notably telepathy, clairvoyance, and premonition or prophecy, seemed likewise to presuppose the existence of such a Cosmic Mind. But none of these facts were adequate evidence that Mind is everywhere immanent in the universe. We can be convinced of that, I concluded, only if we can find a manifestation of Mind in the atom, which has universal existence.

Before discussing that possibility the general consequences of this process of reasoning, as I saw them, should be mentioned. Many physicists were asserting a belief in the existence of "free energy" or "spontaneity" in the universe, and for those of us who could not accept causality-

determinism in all things this was welcome support. A measure of "free energy" or "indeterminism" not only seemed to imply a measure of "free will" but also to offer a justification of our sense of responsibility. For, not knowing the degree of freedom we possess, we must continue to jerk ourselves up, not surrender to the prevalent fatalistic creed that crime and delinquency are merely diseases. Duty and social obligation, therefore would be real, not altruistic delusions; and our belief in liberalism and self-government equally so.

That many physicists who divested themselves of a belief in the absoluteness of the law of causation had also divested themselves of a belief in the philosophy of Absolute Materialism, is certain. The "dematerialization" of the atom disposed of the idea that the world is made up of infinitesimal hard particles of matter. The electron theory of matter, so widely accepted today, asserted that the atom is an organization of electric charges—a central nucleus around which electrons, protons, and neutrons circulate in infinitesimal space dimensions as marvelous relatively as the immensities of interstellar space.

It was a fact also that modern Physics had begun to realize that mere analysis of the atom cannot hope to explain Nature. Philosophy, interpreting atomic organization, must step in where Physics ends and answer the question whether atomic processes are wholly physical or in part psychical. If they are both—that is, if they are psycho-physi-

cal, a belief that Mind is immanent in the universe reasonably follows.

A decision for or against the psycho-physical nature of the atom would, it seems, be the most important one Science or Philosophy could make. The strongest argument *for* it seemed to derive from our own mind and body relations. In these, consciousness permeates our bodies, therefore our body cells. But in doing so must it not permeate the *atoms* of those cells? Can we reasonably believe our cells are living and conscious but that the atoms of them are wholly destitute of consciousness and life? Are the latter but swirling electrical charges totally disparate from life and consciousness, yet creating the marvels of both?

One tragic fact, that of death, seemed responsible for such a conclusion. We reason that since our bodies and body cells die, the atoms of them also die (if they were alive) and become wholly destitute of consciousness. But is not that conclusion a mere antireligious hang-over—a corollary to repudiating the prevalent religious idea of immortality? If an afterlife were not involved, would we not readily believe that our body atoms, as well as body cells, participate in life and consciousness—provided we thought of ourselves as animals only? Why not go further then, as Science would surely demand, and admit that if life and consciousness exist in body atoms they exist in atoms wherever they occur, in either organic or inorganic matter?

New developments in the field of Science were constantly making that question one of paramount

importance. Newtonian physicists and theologians had avowed that "the heavens declare the glory of God," and now many modern physicists were asserting that the infinitesimal firmaments of atoms equally declare that glory. Both were using the "argument from design," so, admittedly, could give only testimony, not proof; for our assertions about a universe infinitely large or small can at best be but probabilities. Yet that both were placing Mind or God in the universe was at least a further argument against Chance as the initiator of its marvels. And avowing so was not mere religious partisanship. Rather it was believing, contrary to orthodox religion, that once chaos had not wholly prevailed in the universe, but that some degree of life and consciousness had always organizingly existed everywhere — and would always continue so to exist.

But what are life, consciousness, and matter? What is the ultimate Reality back of them?

A desire to understand and simplify the world had led men not only to ask that question but in doing so to take for granted as often as not that there *is* one such Reality, and to reason accordingly. Of the answers given the question through the centuries, four or five have survived. They are, that the one ultimate Reality is Matter; that it is Mind; that it is some dualistic combination of Mind and Matter; that it is a Monistic something from which both Mind and Matter derive; or, last, that it is some pluralistic combination of these and other realities, known or unknown.

So confusing have been the "metaphysical" answers to the problem—and to the correlative one, What is ultimate truth?—that today many philosophers have revolted in disgust against Metaphysics with its jungle of technical terminology. And with that disgust I was alternately sympathetic and unsympathetic. I could not accept Materialism, Monism, or Idealism. Yet I could not escape the belief that Mind is immanent in the universe, not only because Chance cannot be responsible for all we see, but because any philosophy of truth, beauty, and goodness would seem, without Mind, to lack ultimate consequence and authority. We might derive these empirically from habit and custom, but that would not give them a philosophic base in the nature of things. If, however, Mind has been immanent in, and coordinate with, the physical universe from the beginning, our human minds doubtless participate in the purposes and values of that Mind.

Another belief that led toward a basis for a clarification of the problem came in the following way. Metaphysicians of all schools, it seemed, were making assertions they could not and did not really believe; assertions so contrary to the actuality of experience that anyone making them could not consistently refuse to admit the validity of *any* assertion however improbable.

The Idealist, for instance, was asserting that all things are Mind; that the whole physical universe springs up within Mind and can be re-absorbed by it, "rolled up like a scroll." But does he really believe that, or is he merely overin-

fluenced by his theory to say so? When he asserts that space, time, and matter are not the infinitely extended realities they seem, but are mere "concepts" or "forms of Mind," is he not violating all the actuality of experience for the sake of his theory? And if he is willing thus to violate his own and all men's sense of actuality, will obsession for his theory not quite divorce him from all commerce with the credible and probable?

Or, consider the Materialist's assertion that Matter is the one Reality from which all things—mind, will, and spirit included—have sprung, by original chance. Mind, he knows, possesses the ability to control his body, to discover the laws and forces of Nature, to create marvelous things and wonder at the still more marvelous ones Nature creates. Can he then really believe that Mind is merely an "epiphenomenon" of brain atoms which are but electric charges so organized by Chance and habit as to produce mentality? Is not such a belief as stultifying to his sense of reality as that of the Idealist whom he derides?

That his own mind is mysteriously linked to his body, the Materialist knows. He believes also that minds exist in the bodies of other men—and of animals. He admits likewise that marvelous indications of order or design, conscious or unconscious, exist in all other forms of matter. Can he then sincerely deny the probability that Mind is an existence as fundamental and universal as the atom itself?

Again, take the other Monistic assertion that neither Matter nor Mind is the ultimate Reality, but that both spring from a Substance which is. A Monist of this type does not and cannot declare that this Substance possesses qualities known as material or mental; for if he did we should at least know something about it. The only avowal he can make concerning it is that it is the Source of all things we know, mental or material; and that is an assertion for which he can give no reason except that they must come from something—which is begging the question. He would smile at the Buddhist's naive belief in Nirvana—a state of infinite bliss because not personally enjoyed as such: for in Nirvana there is no disturbed or disturbing self nor anything definitely distinguishable. Yet this "absolute Bliss" into which the Buddhist escapes is quite on a par with the Monist's "absolute Substance." The only difference between them is that from one the universe is derived, and into the other, Nirvana, the universe disappears—when the Buddhist "attains" it.

This charge that the Idealist, the Materialist, and Monist, do not in their hearts believe their main tenets, but are merely theory-ridden, cannot of course be made categorically. Their beliefs are their own. But the impartial reader must judge whether or not it is valid, and what importance it has in the clarification I shall now approach.

When the Materialist avows that all things spring from Matter, does he include time and

space among them? If not, can he doubt that space, to take it first, must have been coexistent and coordinate with matter from the beginning—whether it be the absolute space of Newton or the relative space of Einstein? And since all material changes take place in time, must not time also be considered as coexistent and co-ordinate with matter from eternity?

To assert that time and space spring from matter, which exists *in* time and space, is of course untenable. They must, therefore, like mind, be conceived as realities coordinate with matter, for they exist everywhere in and through matter—as matter exists everywhere in and through them.

Relativist Physics today regards time as a fourth dimension of space. Whether that description is apt, it is certain that time cannot be conceived as wholly separate from space or as existing independently of it. Space likewise is an equally inconceivable existence without time, for the very idea of existence implies existence *in* time.

That matter is equally inconceivable as existing without time and space, none will deny. That it is conceivable or knowable at all except through mind will also not be denied. But that matter exists outside of our human minds, we firmly believe. Consequently, the Materialist feels justified in saying that though we know matter only through mind, almost a whole universe of it exists outside of and largely independent of *our* minds.

The Idealist's reply, that such matter exists in the Cosmic Mind, merely begs the question, as the Monist did. Yet if matter is experienced by and conceivable only through mind; if therefore it cannot be asserted as existing totally outside of mind, where it would have no assertable content; is there not, finally, a more reasonable probability that mind also exists everywhere within matter as a reality coordinate with it?

However you may answer that, I repeat that one thing is clear: setting aside temporarily the place of life in the universe, we cannot escape an ultimate choice between Mind and Chance as having been predominantly existent in the marvelous processes of Nature; and to choose Mind is to make it coordinate with matter, as space and time are, from eternity.

The clarification to be drawn from all these conclusions is so simple—and the further reasons to be offered for accepting it so seemingly undeniable—that refusing to regard it as affording a new base for an approach to Philosophy will be difficult. *That clarification is, that not only are time, space, mind, and matter coordinate realities, but that they, and they alone, are ultimate realities; that the universe is a time-space-mind-matter "Continuum" beyond which no ultimate Substance or Reality can imaginably exist.*

But what, it will be asked at once, is an ultimate reality? How can we define it? For the practical as well as theoretical worth of this clarification will depend upon the answer given to that question.

Hitherto an ultimate reality has always or nearly always meant some single Reality or Substance behind phenomena and giving birth to them. Even to M. Bergson (according to Abraham Wolf) the ultimate Reality, "an incessant flux," is "something less determinate than consciousness or matter, but from which both derive." If, however, such a Reality does not exist, as is here contended; if it is a mere abstraction without assertable content; then another or other tests of ultimacy in reality must replace it. The tests with which I would replace it—tests that seem irrefutable—are these:

First: That an ultimate reality is one we can experience, one that we immediately experience, and that may be so experienced anywhere and everywhere in the universe.

Second: That it is a reality which cannot be derived from or reduced to any other.

Third: That it is an infinite reality; for only an infinite reality is irreducible to any other. And by an infinite reality is meant here one that is coextensive with existence.

Fourth: That an ultimate reality is one which cannot conceivably be abstracted from the universe or from any event of the universe; one upon which, in other words, any other reality depends for its conceivable existence.

Taking the first of these tests, that an ultimate reality is one immediately experienced in consciousness, can we doubt that time, space, mind, and matter are thus immediately experienced? Beyond question we *do* feel our minds and bodies

immediately. But do we not also and always feel them *in time and space*? And if that be true, are not time and space immanent in, and therefore inseparable from, all our sensations? That we later construct intricate time and space measurements is surely no denial of this fact, which will be considered further in the next and later chapters.

The second test of an ultimate reality, that it is one which is not reducible to or derivable from any other, is self-evident. If it *could* be so reduced or derived, it would not be ultimate.

The third test, that only an infinite reality is irreducible to any other, is also self-evident. All finite realities *are* so reducible.

The fourth, that an ultimate reality is one which cannot conceivably be abstracted from the universe, is equally self-evident. Any reality which could be so abstracted would naturally not be ultimate. And the contention of McTaggart and others that no fact (not even a sneeze) can be abstracted from the universe is no denial of this. For we can conceive the universe as existing without a sneeze but not without time, space, mind, and matter, the existence of which must be assumed before a sneeze or any lesser fact or event is conceivable at all.

If these facts are irrefutable, time, space, mind, and matter alone conform to them, therefore are the ultimate realities. The time-space continuum of modern Physics joins with the mind-matter continuum of philosophers to become the broader existential Continuum of time, space, mind, and

matter, which, being infinite in extent as well as content, is the ultimate beyond which we cannot imaginably go. And each "ultimate reality" in the Continuum, which is not something concretely separate from them, is, let me repeat, immanent in the others.

Though for a while Professor Einstein was inclined to think that space probably is "finite and curved," and though the Idealistic philosophers have considered space and time as ultimately but "concepts" of mind, or, as Professor Whitehead calls them, "relations between events," there is in us the unshakable faith that both time and space are the actual infinities they seem. Furthermore, it is clear that if space has any reality, it is in some sense a material one, therefore that matter is coextensively infinite with it: for an absolutely empty space is but another abstraction.

Of the validity of these tests it can be said, further, that the first, requiring any ultimate reality to be immediately experienceable, should satisfy the legitimate demands of the Idealists and radical empiricists, who ontologically stress Mind; and that the second, which exacts that an ultimate reality be irreducible to any other, should equally well satisfy the Materialist, who does not believe matter is ultimately mind. The third and fourth tests, correspondingly, should satisfy philosophers of any schools whatsoever.

If it is desirable to define the time-space-mind-matter continuum more succinctly, I would say again that its four interpenetrating realities embrace all actual and conceivable existence; that

each, being infinite, exists everywhere and always; that each is immediate in experience, so is felt to be a reality; and that it is folly to seek to derive any of the four from any other or from any single Source, Substance, or Process whatever; also that it is a greater folly to seek to account for the *existence* of the Continuum as it exists or for the infinity of the ultimate realities. God Himself, its Mind or Self, could not do so.

But is not this Continuum itself an Absolute—does it not, at least, function like one?

That question can, I think, be convincingly answered in the negative. Unless the four tests of an "ultimate reality" I give can be set aside, there must be *four* knowable ultimate realities in the universe which interpenetrate without losing their identities, and not merely *one* that is ultimately unknowable. And since no one of the four has been derived *from* the Continuum, as is the case of the traditional absolutes of Materialism, Idealism, and Monism, the Continuum does not function as an Absolute in that respect. From the so-called *untraditional* "evolutionary process Absolutes," such as Bergson's, it also differs similarly. For though with Bergson time is real it is not ultimately so, but is only a part of the "evolutionary process" which "has cut out matter and intellect, at the same time, from the same stuff." For Bergson, it will be remembered, space is merely "the most general characteristic of matter."

If then the Continuum here suggested does not originate time, space, mind, and matter, neither does it control them, nor in any wise exist apart

from them—any more than the time-space continuum of modern physics exists apart from time and space. In fact or in function, therefore, it can in no true sense be considered an Absolute.

The practical and theoretical consequences of these conclusions will gradually appear in later chapters, but two may be adumbrated here. Before stating them, however, attention must be called to the fact that in discussing this quadric Continuum we have been dealing with questions of existences rather than of values, such as Logic, Ethics, Aesthetics, and Religion are primarily concerned with.

The first consequence is, that if this conception of the Continuum is valid, it makes "ontological Metaphysics" with all of its confusions unnecessary. For if there are four ultimate realities which we immediately experience and not a single *unknowable* one behind phenomena, the realm of Philosophy is the realm of the real—the actually and potentially knowable. Philosophers, therefore, will be wholly concerned with interpreting the time-space-mind-matter Continuum, whose ultimate realities we know immediately, after Science has collected and collated the phenomena of the Continuum under laws.

The second consequence is that the Continuum proposed not only would form the basis for a new Ontology but would provide a new approach to the study of Psychology, Logic, Ethics, Aesthetics, and Religion.

The name of this theory—which would seem to offer an approach to Philosophy free of all

transcendentalism — should perhaps be *Quadric Realism*, since it is based on the four realities of the time-space-mind-matter Continuum we daily experience, and since it embraces not only all we know but all that is knowable.

CHAPTER II

A HYPOTHESIS FOR PSYCHOLOGY

For Science, if not for Philosophy, the day of Absolutes is over. Even Mathematics, to whose "certainties" all other sciences have aspired, as other arts are said to aspire to the state of music, can no longer lay claim to more than approximations. The flushing creed of Relativity has penetrated to the roots of all.

Though Psychology, a late comer among sciences, has never hoped for scientific certainties, it has not been without ultimate aspirations. Apropos of these, G. H. Stout writes: "There is no purely psychological hypothesis which has been able to do for Psychology what the atomic theory has done for Chemistry. . . . The Copernican revolution (in Psychology), which some new school proclaims every ten years, has not yet come." He then adds, understandably if not scientifically, "There is much to suggest that Psychology (to achieve its ends) must employ hypotheses and methods peculiar to itself."

What impelled Professor Stout to this latter conclusion doubtless was the difficulty of finding a place for psychological facts under the otherwise universe-wide hypothesis of atomic Physics and Chemistry. So insurmountable has this difficulty seemed that many psychologists have declared that physical and psychical facts cannot be formulated under a single hypothesis; that the psychical differ so radically from the physical as to make it neces-

sary to regard them as a group apart. But Physics must disallow that—and Psychology should; for not only would the universality of the laws of Physics be invalidated if psychological facts are to be considered as a group apart; Psychology itself would thereby be relegated to the necessity of framing a limited hypothesis based upon human and animal facts only, therefore would lack the universality of the atomic theory.

Of the desirability of a wide psychological hypothesis there can be no doubt—nor of the advisability for Psychology to frame such a theory without resorting to Professor Stout's "hypotheses and methods peculiar to itself." The main reason why efforts to frame it have failed would seem to be that they have started from a too limited factual base. How this has occurred and what reorientation is necessary to correct it, I shall attempt to show. To do so, however, will require recalling some of the progressive steps Psychology has taken during the last fifty or more years.

Before that time no specific knowledge of the relation of psychological to physiological processes was available, and Psychology depended almost wholly upon introspection for an understanding of mental life. Not until the interdependence of the two processes was scientifically observed and established by experiment was a vital advance made toward establishing an adequate base for the possible framing of a general psychological hypothesis.

With the arrival of Organic Evolution, an arrival that brought Physiological Psychology in

its wake, the situation changed. From being wholly introspective or "subjective," Psychology became "objective" as well; for the relation of neural and cerebral to psychological processes became "objectively" demonstrable. "Psycho-physical observation," a second means of comprehending our mental life, was thereby added to that of introspection.

As these two means soon found themselves more opposed than supplementary of each other, the right base for framing a general psychological hypothesis was still lacking. A third set of facts leading to a third means of comprehending our psycho-physical make-up was required to complete the base. This set, those of the subconscious (or unconscious) mind, seemed to offer so much in the way of explanation that the conception of the existence of that mind was inescapable. As a missing link enabling us completely to conceive the continuity of our psycho-physical personality, it was indispensable. For it threw light not only on many normal mental processes but also upon the seemingly supernormal class called "psychic phenomena"—a class whose genuineness had hitherto been merely denied or regarded as of "supernatural" origin.

For Psychology the by-and-large importance of the conception of the subconscious mind cannot be too greatly stressed, nor its importance in further clearing the way toward a general psychological hypothesis. We might still be floundering inextricably in psychological doldrums without it. For remember that it is to the control of this mind

that we now attribute not only our involuntary body functions, but many remarkable involuntary mental processes as well. Remember too that while it is the depository of the individual's past experience, its lower level, the unconscious, may be considered as the depository of our hereditary or *race* experience—a suggestion to which I shall return later.

The arrival of the conception of the subconscious mind fortunately proved to be as opportune as important. Behavioristic Psychology, an extreme reaction from Introspectionism, sought to eliminate the latter mode from the field completely by insisting that our mental processes should be explained by "external psycho-physical observation only"—an insistence curiously blind and dogmatic. For to discard introspection in Psychology would be like discarding the thoughts and words of *Hamlet* for a mere production of the play by pantomime only. The wide acceptance of the conception of the subconscious mind quickly aided in reducing the fallible claims of Behaviorism to their proper proportions.

In paving the way, further, toward a new base upon which to frame a general psychological hypothesis, a few historical facts concerning the subconscious mind should be recalled. Introspective Psychology, which held the boards for so long, usually divided the mind into intellect, emotion, and will, with the soul, a half supernatural entity, seated above the mind and ready to take flight at death to some elysium or limbo.

An early theory of the subconscious mind, set forth in Thomas Jay Hudson's *The Law of Psychic Phenomena*, rang a change upon this classical mind-soul theory. Hudson's popular book, derived largely, perhaps, from the investigations of F. W. H. Meyers, naively transposed the soul to a different seat. From its semisupernatural throne above the mind it was shifted below to the subconscious, with which indeed it was made almost identical. For to Hudson the "perfect memory" and other "miraculous" powers of the subconscious mind, all of which he considered beneficent, seemed to be nothing less than soul manifestations.

This pleasant but flattering illusion concerning the nature of the subconscious was quickly dissipated and today is quite forgotten. It could not withstand the more realistic impact of the Freudian theory, which was already on the way to prominence. Nevertheless, its religious implications helped to prepare the orthodox public to accept the doctrine of the subconscious mind, even though Freud went to the opposite extreme and considered that mind as the wholly maleficent and dubious abode of destructive complexes, libidos, and neuroses, rather than as the mystic seat of the soul.

In the light of today it is clear to us that the subconscious mind can be both demonic and divine, maleficent in its controls and beneficent in its inspirations. And though we have not yet achieved an adequate understanding of it, we realize that it alone has so far suggested to us the

only credible non-supernatural approach to an explanation of such astonishing facts as those of telepathy, clairvoyance, genius, and premonition.

The immediate importance of the subconscious mind to our purpose here is that a belief in it provides us with a working conception of the continuity of our psycho-physical personality—which is, I think, a prerequisite to formulating a satisfactory general psychological hypothesis. But how, it will be asked, does it provide that conception? and how did it get in a position to do so?

To the latter question believers in Organic Evolution can have but one answer. Mentality as we know it first manifested itself in the protozoa, where it seems to be hardly more than a diffused unconscious motor activity with vaguely conative inclinations. In the evolution to higher species this activity, often repeated, becomes reflex action, then instinct, which in still later species arrives at consciousness.

Why this development occurs as it does is a question that concerns Philosophy rather than Science, so at this point may be set aside. But that some degree of consciousness has existed everywhere in the evolutionary process from amoeba to man must be admitted; and the order of development upward is always from unconscious spontaneous movement, through reflex action, to instinct, and thence to consciousness: all of which, it will be remembered, are to be found in the continuity of our *individual* psycho-physical development from birth on.

Speaking generally, then, it can be said that the subconscious mind lies at the point of our psycho-physical being where facts that are primarily psychical subside toward the physical, and where facts primarily physical rise toward consciousness. An unbroken continuity of interacting psycho-physical forces, therefore, exists in our personality and of these forces it is impossible to assert, either from introspection or from psycho-physical observation, that any one is *purely* psychical or *purely* physical.

If we will remember this and keep in mind the fact that the subconscious mind controls many of our involuntary mental as well as physical functions, we shall find in it a clearer conception of the continuity of our psycho-physical personality. But not only that. We shall also find further confirmation of the reasons given in the preceding chapter for believing that mental and physical facts have always been coordinate and coexistent throughout the universe. For the ceasing of personal consciousness at death and the return of our bodies to (inorganic) dust, does not exclude the possibility that some degree of consciousness still exists in the atoms of that dust.

Another question vital for any satisfactory psychological hypothesis starts up just here from the obscurity within us. It is whether the psycho-physical continuity of our personality does not *psycho-physically* continue between ourselves and the outside world, thus making immediate knowledge of that world possible.

The failure fully to consider this question and find a valid answer to it has been, as I see it, another main reason why Psychology has been unable to frame a hypothesis for its facts as serviceable to it as the atomic theory to Physics. Before discussing this reason, however, a previously mentioned one which seems to prevent the framing of such a hypothesis should be considered.

By assuming that atoms exist everywhere in the universe, Physics and Chemistry have made possible the framing of the atomic theory—which, to be valid, must cover all existence. Psychology has claimed no such wide existence for its facts, but has been content to assume that psychical facts exist only in men and animals. The rest of the known or unknown universe has been submissively regarded as wholly non-psychical. A universe-wide psychological hypothesis, therefore, has not been conceivable.

It is not materialists alone who have submitted to this view. Even those psychologists who believe in a World Consciousness, or God, have not revolted against such a limitation of their factual sphere. Yet by failing to do so, and by not insisting that the mental processes of the World Consciousness are similar to our own and knowable to us, they not only defeat their faith but hamstring their particular science. For though they speak boldly enough of "the immanence of God in Nature," they do so without seeming to realize that such immanence can mean only one

thing—that some degree of consciousness exists throughout atomic Nature.

Caution, no doubt, prompts this timid attitude, fear of falling into anthropomorphic conceptions of the World Consciousness. But unfortunately this caution plants these psychologists firmly on the horns of a dilemma. Either they must frame for their science a *limited* hypothesis based merely upon the psychological facts of our planet; or, if they seek a universal hypothesis, must base it upon the admitted existence of psychological facts anywhere and everywhere—facts that would include those of the immanent World Consciousness they believe in. To avoid the dilemma by saying the psychological facts of a World Consciousness are unlike ours, and therefore unknowable, will not avail. It merely leaves us with two irreconcilable sets of facts from which to frame a single universal theory.

As a prerequisite then to formulating a universal hypothesis it is plain that Psychology must assume the universal existence of psychical facts throughout Nature, as Physics has assumed the existence of atoms. If the World Consciousness containing these facts exists, its existence, conscious and subconscious, would, of course, be co-extensive with the physical universe. If it does not exist, the attempt to frame a universe-wide psychological hypothesis is absurd and should be abandoned. For only if the psychical exists co-extensive with the physical is such a hypothesis possible.

On the other hand, an equally difficult problem is left on the lap of those psychologists who deny the existence of a World Consciousness. They must tell us how they will fit psychological facts into a purely physical theory of the universe; facts that seem to be a group apart; that seem indeed to be so different from physical facts as not to have been derived from or be reducible to them—a situation the atomic theory cannot allow.

Both physicists and psychologists are aware of the *impasse* here, but have faced the difficulty without realizing that there seems to be but one solution for it. They must accept the conclusion that psychical facts are not a small separate group apart, but that the psychical and physical spheres are coextensive throughout the universe.

But return now to the other main reason mentioned as preventing Psychology from framing a hypothesis as serviceable to it as the atomic theory to Physics. This reason, I averred, was our failure to conclude whether the psycho-physical continuity existing within our personality does not continue with psycho-physical immediacy between ourselves and the outside world, our environment.

If it does so continue, we can rightly admit that our knowledge of the outside world is not merely inferential, as has been held from the time of Descartes, but is immediately real, like our knowledge of ourselves. And that admission would seem to require a reorienting of psychological phenomena—a viewing them from a new base—which would at least make possible the framing of

our hypothesis. But does this psycho-physical continuity within us continue outward with immediacy?

Generally when this question has been put it has been considered as one for Philosophy, not Psychology, to answer; but it is of fundamental importance to both. The answer given has usually been that the psycho-physical continuity within our personality does not continue *immediately* between ourselves and the outside world, but only abstractly or inferentially. It has merely been assumed on all sides that our environment begins discontinuously outside of us; and radical empiricists go so far as to say that we *know* nothing but our own experience.

That assumption must, I think, be challenged. For if the continuity between our psycho-physical personality and our environment is not immediate and real, there is a hiatus, a break, between the two which would make even inferential knowledge of the outside world impossible. *Some* immediate continuity with that world exists or no knowledge of it whatever can even be reasonably inferred.

In confirming the correctness of this position, which leads a step nearer to the hypothesis I shall propose, two conclusions of the preceding chapter must be referred to. One was that mind and matter have always coexisted inseparably, coordinately, and interpenetratively throughout the universe. The second, that if our body cells participate to some degree in consciousness our body atoms do also; and, therefore, that, since an atom

in an organic body does not differ from one of its kind in an inorganic body, we may say that inorganic atoms participate in consciousness.

The bearing of these conclusions on the question of the actual psycho-physical continuity between ourselves and our environment should be apparent. That environment is space, or space-time, and the rest of the outside world, material, and mental. But if space (and therefore time) is in some sense a material reality, not a mere "concept," it is atomically organized; and, that being so, our body atoms are in immediate contact and continuity with space atoms; for no absolute hiatus between atoms is allowable anywhere in the universe. Likewise with mind. If mind is in some degree material, it also is in some sense atomically organized; therefore its atoms are in immediate contact with space atoms and so, it may well be, actually, as well as theoretically, in contact with other atomically organized minds and bodies of our environment. The nature of the psycho-physical continuity is like that of the time-space continuum or of the time-space-mind-matter continuum I have advocated: a continuum in which, it will be remembered, each of the four components immediately interpenetrates the others without losing ultimacy or identity.

Again, only by admitting that mind, one of the four realities of the continuum, is in some sense material, can it be conceived as *immediately* experiencing the matter of our bodies or other outside materialities, including those of space, time, and other minds. Only, in other words, by ad-

mitting that the continuity between our psychophysical selves and our environment, the universe, is *immediate*, can we have any knowledge of it that may not be mere "biological illusion." For even inferential knowledge of it, to be trustworthy, would, as I have said, demand some degree of immediacy. From a logical as well as common sense viewpoint, then, we are required to admit that our knowledge of the universe is not merely inferential but immediate.

As framing a satisfactory psychological hypothesis without accepting this view of the continuity between ourselves and our environment seems impossible, let me make a resume of the preceding arguments.

(1) There is no absolute hiatus on the psychical or physical sides between ourselves and other minds and bodies, including the materialities of space and time—which, incidentally, are both "subjective" and "objective." The continuity between ourselves and our environment is therefore immediate; which means that we immediately experience not only our own bodies, but space, time, and other minds and bodies as well.

(2) The frequently made assertion that "mind cannot be objectively experienced," but that "other minds can only be known by inference and analogy," is wrong, and is a mere stumbling block to both Psychology and Philosophy. For if mind is in some degree material, we may experience other minds and bodies as immediately, if not as fully, as we experience our own.

(3) To experience our own bodies we must admit that our minds are in some degree material and so atomically organized; otherwise an absolute hiatus would exist between our mental and physical sides, making any genuine psychophysical experience impossible.

(4) If, on the other hand, we deny that our minds are in any sense material, yet admit, as we do, that we immediately experience our bodies, we must also admit that our bodies, at the time, may be immediately experiencing other bodies—and so other minds. The continuity from mind to mind, therefore, is unbroken. So whether we do or do not deny materiality to mind, we know our universe—its space, time, mind and matter realities—with some true immediacy.

The crux of what is here insisted upon comes essentially, then, to this: if matter is an immediately experienced reality, time, space and other minds are also; therefore it is the ultimate realities of the universe that we immediately experience. A sense of them is indeed logically prerequisite to experiencing even the simplest sensation, for every sensation is of mind and matter saying something about here and now. All experience, then, is built upon this immediate sensing of time, space, mind and matter.

(5) I have insisted also, and shall seek to show further, that only by accepting these conclusions shall we be able to formulate a psychological hypothesis as serviceable and wide as the atomic theory for Physics. But before proceeding definitely to that attempt let me suggest that the preceding

conclusions imply an acceptance of the following inferences also:

(1) That we never experience a physical fact that is not also a psychical fact, or *vice versa*. For no fact that is purely physical or psychical exists in the universe.

(2) That experience is, therefore, not a thing of the mind only, but of our whole psycho-physical personality, as Gestalt Psychology tends toward stressing.

(3) That since our environment is a continuum of time, space, mind and matter, each of which is an infinite reality and each of which is immediately present in our experience, there is no *theoretical* limit to our experience of these realities. Therefore, to have some experience of the World Mind, for instance, as mystics insist, would not be impossible. For, granting the existence of that Mind, it is material and mental like our own.

(4) That if our fundamental experience is immediate experience of time, space, mind, and matter, our knowledge of the outer world is based upon an immediate sense of ultimate realities—which is the reverse of the usual belief that our knowledge of ultimate reality or realities is inferentially built up from minute sensation structures.

(5) That only by realizing that a world of psychical reality exists coextensively with the world of physical reality can a universal psychological hypothesis as adequate as that of the atomic theory be conceived.

With the ground thus prepared it is now possible, I think, to approach nearer to the specific formulation of a hypothesis.

I reasoned in the preceding chapter that the universe is a continuum of four ultimate interpenetrating realities: time, space, mind, and matter (or energy). I have been reasoning here that these four are experienced immediately—that they are always felt to be present, though not, of course, analyzed as such, in any experience reaching the stage of consciousness.

I now wish to go further and add that these four ultimate realities are the only ones we *always* experience immediately; that a sense of them is prerequisite to other experience, even to that of our “five senses.” For, as psycho-physical beings in time and space, we may be blind and deaf, say, so sight and sound are not prerequisite to experience, but are only aspects our developing minds perceive in our fundamental sensing of time, space, mind, and matter, which sensing alone is necessary to any conceivable experience. Those psychologists who have asserted that a “consciousness of here and now with a more or less defined content” is the basic unit of knowledge, therefore are nearer the truth. The “more or less defined content” is but our sensing, however vague, of our minds and bodies, or, put more generally, of mind and matter. Ideas that follow percepts and concepts that follow ideas build up our knowledge of the world inferentially, but that knowledge is based upon our immediate sense of

time, space, mind, and matter, which is our sense of the universe.

This leads to a further conclusion that should be almost self-evident. It is that we could not possibly conceive of time, space, mind, and matter at all except by immediately experiencing them. For though we later learn to analyze and measure them, and construct ideas of their infinity, etc., we could not do so were they not immediately sensed realities. No amount of constructing could give us a conception of time, say, or of space, without our immediate sense of them.

As further proof that time and space are immediately sensed, not derived or constructed inferentially from other experience, remember that no concrete experience has ever existed or is conceivable in which time and space are not present as elements. For every experience is spatial and temporal, not only in the sense that it occurs in our minds which are in space and time, but in the sense that we feel space and time immediately interpenetrating it—as we feel mind and body interpenetrating it. We cannot indeed feel our minds and bodies without feeling space and time; nor could we possibly get any conception of the nature of space and time did not our minds and bodies first feel their existence. An immediate sensing of space, time, mind, and matter, therefore, is a universally basic requisite of all experience.

Not only is that so, however, but since the four are infinite as well as ultimate realities, our basic experience is not of minute finite sensations, as

Physiological or "Atomic" Psychology asserted. That assertion, a cue from Physics, fails to realize two things. First, that no "pure" sensation has ever existed separately—for all sensations are but aspects of a more complex experience. Second, that only by a presupposed sense of time, space, mind, and matter could we *conceive* of atomic distinctions concerning mind and matter in time and space.

If that be true, we are entitled to say that while Physics must base its hypothesis on the nature of the infinitely small, Psychology's must be based on the nature of the infinitely large—which we must immediately experience if the universe is to be truly knowable to us. Also, if space, time, mind, and matter are indeed, as I have reasoned, ultimate realities, both Physics and Psychology must deal with all four of them in considering the nature of the universe. And for Physics that necessity can only mean that matter is a component of consciousness, as consciousness is of matter. For mind and matter must thus interpenetrate each other or no single universe is conceivable, not to mention a universally valid hypothesis for either physical or psychological phenomena.

Both Psychology and Physics have partly recognized this: Psychology by linking itself with Physiology, and Physics by its talk of an "agent" in the atom. But its more complete recognition seems inevitable just now, especially by Physics. For, may the greatest present handicap of that science not lie in its failure to see that the atom is not wholly physical?

Professor Einstein has recently confessed (December 10, 1940) that he has reached an *impasse* in his efforts to write his long-sought "field equation," which would "describe the underlying relationship between time, space, matter, and energy." But if mind is one of the ultimate realities of the universe and if it is in some sense atomic, must he not take *it* as one of the terms of his equation? True, it is not wholly reducible to matter any more than matter is wholly reducible to it; but being in some sense physical, can it be left out of his terms—whose equation must in any case be relative in a Relativistic universe?

The Quantum Theory would seem to serve the situation better here. The "free energy" of quanta—energy not wholly subject to the law of causation—might be mental, which would account for its "freedom"; though I should be inclined to regard quanta freedom as due to the fuller fact that in the time-space-mind-matter universe no one of the four ultimate components is reducible to the other.

It seems wise, if I am right so far, to pause here and offer a definition of Psychology in harmony with the arguments of this chapter before finally expanding and reviewing them and before stating the hypothesis they imply. The definition I offer is this:

Psychology is the systematic study of psychophysical experience, conscious, subconscious, or unconscious, as it occurs or may be rightly inferred to occur anywhere in the universe.

The chief steps of the argument leading up to this definition, and to framing the implied hypothesis, are these:

(1) Neither Introspectionism nor Physiological Psychology, which reached its extreme in Behaviorism, could give us the right conception of our psycho-physical personality, or, consequently, of our experience, which is psycho-physical. A further conception, that of the subconscious mind, which reveals the continuity between the physical and psychical in us, was needed. Philosophic proof of the existence of this continuity is based upon the conclusion that mind and matter are interpenetrating realities neither of which is reducible to the other. That being so, mind would in some sense be material and matter in some sense mental, which alone would make a genuine psycho-physical continuity possible—or conceivable.

(2) The analysis we make of this continuity when we consider it as genetically evolving from the amoeba to man is that the unconscious motility of the psycho-physical protozoa becomes, in successively evolved species, reflex action; then instinct, which is habitual reflex action approaching consciousness; then consciousness itself. And it is during this development that the unconscious mind's first control of involuntary body functions occurs. On the other hand, reversing this process *from* consciousness, we see conscious states constantly subsiding into the subconscious and into the deeper level of the unconscious, where the

psycho-physical process begins in the human individual as it genetically began in the protozoa.

(3) The psycho-physical continuity of our personality continues *psycho-physically* with our environment; which means that we experience our environment, the universe, immediately, and, therefore, that immediate and not merely inferred knowledge of it is possible.

(4) Our environment is space, time, matter, and other minds, which are atomically organized like our own psycho-physical personalities, and so are immediately experienceable—since in the atomic world there can be no total hiatus between atoms.

(5) As psycho-physical beings, therefore, we experience immediately not only our own minds and bodies, but also space and time and other minds and bodies, all of which are atomically organized. This means that we have an immediate sense of our universe, which is a continuum of the four ultimate realities, time, space, mind, and matter. Therefore the assertion that we cannot “know other minds objectively” is false.

(6) Our experience, then, is not based upon the changing elements of minute sense-organ experience from which we infer the existence and nature of the rest of the universe, but upon the only element of our experience that is universally present in and requisite to it: namely, our sense of time, space, mind, and matter, the ultimate realities of the universe. What we immediately know, then, is these four realities, upon

our analyzed sense of which all other experience is founded.

(7) Any psychological hypothesis, to be universal, must be based upon that element of experience which is always present in it; and that element, I repeat, is a sense of time, space, mind, and matter, which enters into our first conscious experience and develops to our last.

(8) To have a universe at all, that is, to have one not irreconcilably divided into physical and mental facts, the physicist, assuming that atoms exist everywhere, must admit that they are in some sense mental; and the psychologist, assuming that some degree of consciousness exists everywhere, must concede that it is in some sense physical and atomic. Both must concede that time and space, like mind and matter, are thus psycho-physical. For if these admissions are not made, the universe is not only irreconcilably divided, but is unknowable as well; and in a universe so divided no satisfactory theory of the relation of mind to matter is conceivable. On the other hand, if they *are* made, it implies for Philosophy the admission that time, space, mind, and matter are ultimate realities, and for Psychology the possibility of framing a universal hypothesis—but, be it marked, one that is psycho-physical, not merely psychical.

That hypothesis, which I will now venture to state, is this:

Every experience is psycho-physical, and the only element that always occurs in any experience anywhere in the universe is an immediate sense

of time, space, mind, and matter; or, to put it otherwise, of mind and matter in time and space: a sense on which all knowledge of the universe must be based. As these four—time, space, mind, and matter—form the continuum of the universe, beyond which nothing can exist or be known, all experience must be immediately of or inferential from these four realities and of nothing beyond them.

That our sense of time, space, mind, and matter is thus basically immediate, and actually, as well as logically, prerequisite to any experience, does not, of course, mean that it antedates every other aspect of experience in consciousness, for experience, even in infancy, is psycho-physically complex. It does mean, however, that while other aspects of experience, say hunger or fear, sight or sound, come and go, our basic sense of time, space, mind, and matter does not. Always present in some degree, it makes other experience distinguishable.

The practical worth to Psychology of this hypothesis should be clear. A few ways in which this is so will be named.

(1) As the Quadric Realism philosophy I have proposed seemed to make it possible to dispense with the necessity of having a separate branch of Philosophy called Metaphysics, so this related theory of Psychology does away with the necessity for Epistemology as a separate study concerned not merely with the nature and limits of our knowledge of time, space, mind, and matter, but also with a single unknowable absolute Reality

transcending these. With such an "Absolute" eliminated, the only theory of knowledge required will be a true theory of Psychology, which should be one based upon an immediate sense of the four ultimate realities of the continuum.

(2) It will be possible under this hypothesis to conceive of a World Consciousness that is immediately—though infinitely—aware of time, space, mind, and matter, without possessing any such specific sense organs as we possess; a World Consciousness that would naturally have its subconscious and unconscious depths and that would develop, if it did not from all eternity possess, specific ways of knowing of its own.

(3) Also, under this hypothesis, as has been intimated, we could be in a position to conceive a satisfactory psycho-physical explanation of such mysterious phenomena as those of telepathy, clairvoyance, mental healing, premonition, etc. For if mind is psycho-physical, and therefore in some sense atomic, it might send atomic wave communications to distant persons to effect telepathy, or to distant places and objects to effect clairvoyance. If, also, such psycho-physical waves are possible, they might be developed with a strength that would produce telekinesis, say, or mental healing—in which so many scientific observers have professed belief. And even premonition might not seem so wholly incredible to us, if time is an ultimate, infinite, immediately-felt reality. For the future would be an actual, if undeveloped, present, not a wholly non-existent something to be created out of nothing. Present

time, which is psycho-physical and which grows out of the past that is not wholly spent, projects itself psycho-physically forward toward events that are now not wholly unborn, thus making some glimpse of them not impossible.

But these are mere suggestions which should not affect the validity of the reorientation here proposed for Psychology, as previously for Ontology. How this reorientation of Psychology will affect the study of Logic will be considered next.

CHAPTER III

A UNIFIED LOGIC

The question of the relative rank of Philosophy, Psychology, and Logic in the philosophical hierarchy has been responsible for an unseemly amount of confusion. Professor E. A. Ames, among others, has urged that not Philosophy but Psychology, "the science of the mind," should be considered the fundamental subject under which all philosophical studies should be placed. Claimants for the primacy of Logic likewise have arisen; their claims based upon the fact that Logic is related to the mental sciences as Mathematics to the physical, and that it is upon the tools of Logic we must depend first of all to arrive at any philosophical truth whatever.

The confusion will disappear, perhaps, if we cease exclusively to identify Philosophy with Ontology, as is sometimes done, and if we will realize that the question involved is at bottom the academic one whether "being" or "knowing" is the more broadly basic. Neither can be, of course; for since each implies the existence of the other they are equally fundamental. Nevertheless, since it is the realm of being (or reality) that for centuries has seemed of more fundamental interest to thinkers, there is little reason for seeking to reverse the trend. It would seem wiser to agree that the term "Philosophy" should be retained as the name for the general study which asks questions concerning the origin and nature of on-

tological, psychological, logical, ethical, and aesthetic facts.

Though Aristotle, in the first recorded systematization of Logic, pointed out three main types of reasoning, modern Logic, influenced by modern Psychology, has tended toward telescoping the three. Aristotle's first type of reasoning, that by analogy, has been merged with the second, reasoning by induction, which is reasoning from a part to the whole, or from the particular to the general. But this type of reasoning has been considered by many as merely the reverse of the third type, reasoning by deduction, or reasoning from the general to the particular.

It will become apparent later on that if we are to have a unified Logic capable of giving us ultimate conclusions, the logical processes involved in all types of reasoning are in fact one. Yet the distinction between induction and deduction is valuable and should be retained, for it enables us to keep in mind at any moment whether our reasoning is from the particular to the general, or *vice versa*. Moreover, since some philosophers have been inclined, like Aristotle, toward induction, and some, like Plato, toward deduction, it is advisable that we know the personal equation of each. And again, the distinction is valuable because philosophers as a clan have been accused of being addicted to deduction, and scientists to induction—though manifestly each must use both methods. For in a psycho-physical universe each must use particular facts and their interpretation, which must in turn be given inductive proof.

Bacon and Descartes, as is well known, revolted from the deductive method to induction at the beginning of the modern era, but in doing so found themselves faced with a new aspect of the problem of Logic, namely, the realization that we do not always seem indebted either to the inductive or to the deductive processes of Formal Logic for our supreme discoveries. The scholastic Middle Ages, then in retreat, had leaned more heavily on deduction. The existence of God had been assumed by the Scholastics, and from it all of the ecclesiastical philosophy of the time had been deduced. But Bacon, starting inductively from known facts rather than with an unknown God, surprisedly saw that some faculty which seemed to transcend ordinary reasoning often was responsible for great discoveries. Such discoveries seemed indeed to be inspirations sponsored by no reasoning processes whatever.

Could that be so? Were such great ideas, in fact, transcendental intuitions of genius in which logical processes had no part at all?

This question, which definitely (and unfortunately) linked Logic to Metaphysics, has in one way or another been confusedly at the center of most discussions of modern Logic. Yet not without a valuable consequence, for it opened up one of the most fertile fields of logical development, a field aptly called by F. D. Carmichael and others "the logic of discovery." The answer we give the question, therefore, will be of moment in more ways than one. For if reasoning processes are not requisite to great discoveries, Logic not only will

lose caste and pragmatic value, but will leave us embarrassed with the realization that we do not arrive at truth in one exclusive way but in two wholly unrelated, the normal and the transcendental. And here modern Psychology, which taboos transcendentalism, objects. The question, it says, has at this point become one of psychological fact; and if that is the case, as undoubtedly it is, the crucial importance of the subconscious mind in making possible the continuity of our psychophysical personality again appears. For the mysterious inspiration of a great discovery may be attributed to the action of that mind rather than to any wholly transcendental source.

If we discard the dubious aid of transcendentalism and attribute any discovery to hidden processes of the subconscious mind, as seems advisable, we can in some measure explain such a discovery naturally, even with our still limited knowledge of that mind. A discovery, as we know, may flash upon us when no conscious induction or deduction seems to be responsible for its appearance, though the conscious mind in such cases no doubt has been exerting itself in the direction of discovery. There is, however, much evidence to justify us in supposing that this exertion has not been without its effect, that, in fact, it has induced some reasoning which, taking place in the subconscious mind, has brought the discovery forth. For it is fairly certain that the subconscious mind is not a mere memory crypt where numberless inductions and deductions lie entombed, but that it is a living mental thing capable

of thrusting forth the new idea which constitutes the discovery. And this view, if right, means for Logic as for Psychology that the reasoning processes of the conscious and subconscious minds are one, thus obviating the necessity for transcendental explanations—which do not in fact explain.

With the integrity of the truth-determining faculty thus achieved, we can take a step further. In all discussions of the sciences the term “axioms,” which Euclid used in his *Geometry*, has given place to the better term “postulates,” defined merely as fundamental assumptions. This change has been due not merely to recognition by each science that it has postulates of its own, but that, being relative to other sciences, and dependent upon them, its postulates also are relative.

As an example of this relativity Euclidean Geometry, supplemented by today’s non-Euclidean, will serve. At first it was supposed that the new non-Euclidean Geometry would invalidate the axioms of Euclid, but later the realization came that these axioms were merely rendered relative, in a universe where all the sciences are relative. In Formal Logic, “the Logic of demonstration” which Aristotle systematized, the same change occurred. Supplemented by the new mathematical logics and by the “logic of discovery,” the postulates of Formal Logic no longer remain as self-evident absolutes. To chart the wider spheres of the new logic new sets of postulates have been required. Yet these postulates

must be based upon the unity of our reasoning processes, which in turn must be based upon such a continuity within our psycho-physical personality as the psychological chapter of this book has proposed.

Two of the fundamental postulates on which Formal Logic has based its conclusions are these: (1) that there are connections (called causes by Physics) among objects and events in the real world; and (2) that these connections are uniform in character—meaning for Physics that the same causes produce the same effects throughout the universe. Back of all such postulates there is, however, another that seems to be more fundamental to reasoning in all spheres of thought. It is suggested by the inference Descartes made in his celebrated but unsatisfactory assertion, "I think, therefore I am."

In making this inference Descartes did not seem to notice that another judgment already had been assumed by him, namely, that he is capable of making true judgments—which is also in fact an assumption of his existence. *We must, therefore, admit that the basic postulate for all philosophic and scientific reasoning is that there is an experiencing subject capable of making true judgments. And if we dissent from this conclusion, we must admit that our beliefs may, in fact, be what they are sometimes called, "mere biological illusions."*

The main business of Logic, therefore, undoubtedly is to determine on what grounds we base our beliefs that true judgments, including those about the universe itself, can be made, and

then to formulate if possible the processes of inference or discovery by means of which we make them.

How go about this task? Well, our discussion of Psychology stressed the fact that the experiencer is always psycho-physical and that the basis of his experience is always an immediate sense of infinite time, space, mind, and matter, the ultimate interpenetrating realities of the universe. Also it stressed the assumption that all other experience is inferred. Consequently when dealing with Logic, which is concerned with the *inference* processes of experience, it must not be forgotten that these processes have grown out of our immediate sense of the four ultimate realities, therefore can give us *real* knowledge of the universe.

It is, of course, the province of Psychology or of Psycho-physics to describe and correlate these processes of inference considered as mere mental phenomena. Logic's specific sphere is to consider them not as mere mental phenomena but as processes affording truth or error—which are values we give them: and upon the confidence we have in these processes will finally depend the worth of our knowledge of the universe. *We may, therefore, define Logic as the systematic study of that portion of experience, conscious or subconscious, in which reasoning leads to truth or error—a definition that manifestly implies consideration of the origin and validity of reasoning processes in general.*

Please observe the phrase “of reasoning processes *in general*,” not of *our* reasoning processes,

for the distinction is important to achieving any ultimately valid Logic. That Psychology makes a mistake in trying to frame a universe-wide hypothesis for itself upon the assumption that psychological facts exist only on our planet, I tried to show. A hypothesis as serviceably wide to Psychology as the atomic theory to Chemistry and Physics must, I urged, cover all psychological facts, including those of a possible World Consciousness. And in that respect Logic is similarly placed with Psychology. The judgment that all judgments must be based upon the assumption that true judgments can be made is one the World Mind, if it exists, must apply to itself as we to ourselves. To believe that a judgment has universal validity we must believe it is valid for any competent intelligence whatsoever.

To dissent from this view and say that *our* reasoning processes merely give us *our* logic, and that there may be a hundred other logics on a hundred other planets, is to find ourselves destitute of the means of determining which of these logics is right in case they make opposing assertions concerning the universe. Or, similarly, if we declare that a logic entirely different from all these logics may exist in the World Mind, we can only admit as before that we may be in the toils of "biological illusion" in so far as making any dependable universal assertion is concerned. Therefore, no assertion, such as that of the atomic theory, or of the conservation of energy, or of the uniformity of nature, can be considered as dependable if the logic we use in arriving at it is not

essentially the logic by which any competent intelligence arrives at any universal "truth."

In the implications of this conclusion the question of the origin of our reasoning processes and of our logic now comes to the fore; and that question is as critical for Logic as, in a similar way, it is for Ethics, Aesthetics, and Psychology. For in facing it we seem to be compelled to choose between two opposing and equally unsatisfactory alternatives: namely, between declaring that the origin of our logical faculties is an empirical development from our evolutionary earth experience, or that, seeming to be intuitive, it is what is usually but deplorably called "metaphysical."

There is, however, another alternative, one which the term "metaphysical" obscures, and which, thus obscured, seems to promote much of the confusion. As used in this connection, "metaphysical" has been taken to mean that the origin of Logic is in a sphere *outside* of the universe of time, space, mind, and matter, not *within* it. But if, as we have contended, it is impossible to conceive of anything outside of these four ultimate realities, "metaphysics" is a word for what does not exist, so must be discarded or differently defined. Rightly stated, the question then will be whether our Logic has an entirely empirical origin in our earth experience or is connected with the Logic of the World Mind, which, if it exists, is not "metaphysical" but is merely one of the four ultimate interpenetrating realities of the universe.

For Logic the answer to this question of origin hangs upon still another: Whether the reasoning

processes of our minds correspond to orderly processes in the outside world in a way to give us truth: whether, to be more concrete, the reasoned generalizations we frame and call "laws of nature" are, in fact, true statements of orderly processes in Nature, or whether, if they are not, we have merely been duped by our minds, or by Nature, into supposing them to be. That we do suppose them to be is beyond question.

For the differences of opinion this question has caused we shall have to thank a conception of "Nature" as mistaken and unfortunate for Philosophy as certain conceptions of Metaphysics have been. According to this conception, which often appears in scientific as well as philosophic or religious discussions, Nature is assumed to be separate from and opposed to God, the Cosmic Mind, and to our minds. It is, therefore, not regarded as the whole of the quadric Continuum, as it should be, but as the Continuum minus mind: for the immanent mind, God, is assumed to be outside of it and not one of the four interpenetrating ultimate realities of it. The result has been an unwarranted ontological divorce between the physical and psychical orders, leaving us with a dualism that makes a single unified system of Logic impossible.

Accordingly, the need for Logic to disavow the "metaphysical" and place the Cosmic Mind *in* Nature is as great as it is for Ontology and Psychology. Not until it has done so can its origin and validity be rightly examined. Nor indeed until then can we make a clearheaded approach

to the question of the correspondence of the logical processes of our minds with the order we are compelled to believe exists in Nature.

In saying "compelled" I am not unaware of those who assert that no true order exists in Nature and that we are, in fact, under a "biological illusion" in attributing "laws" to it. However, as this view is nihilistic therefore destructive of itself as well as of all knowledge, it is not often seriously advocated. Experience and experimentation through the centuries have given us the ineradicable conviction that Nature is orderly in its structure and development—though doubtless not wholly so, since it seems still "in process." Of a chaotic universe, one lacking in any universal order, no universal assertion could reliably be made. Whoever seeks to make one may believe he is making a true judgment, but having made it is unable to determine whether another judgment from another source may not be right, if there is no *authoritative* Logic to referee a decision between them. For any assertion about the universe is but a private opinion unless it submits to demonstrative evidence; and do that it cannot, unless some universal order exists which would make logical demonstration possible.

Of those who hold that the universe is at least orderly in some degree there are many who hold that its order, including that of consciousness, has merely come into existence by chance. The laws of probability, they admit, are against this belief by any astronomical figure you please. But if

we grant its truth, we are certainly saying, by inference, that the universal order did not come into existence through any degree of purpose; and, therefore, again by inference, that from the beginning there was no mind in the universe whose purpose participated in bringing order about. Yet if we say this, we are saying that no purpose really exists in the universe. For if its order came about by chance through the mere play of physical forces, what seems to be purpose in ourselves is of course not purpose, in the last analysis, but merely the play of these forces. Therefore, mind and purpose, and our Logic as well, may all be only "biological illusions."

Yet if we believe that things so fundamental as mind and purpose do not ultimately exist, why believe that the order our minds assert to be in Nature really exists, as undoubtedly we do? Or why trust any "laws of Nature" or of Logic either, for that matter? For if we believe the order in Nature is in no way connected with mind and purpose but is the accidental result of mere physical forces, the very Logic we reason with is accidental. And if that Logic came into existence accidentally, a wholly different Logic might have come accidentally—a conclusion which would at once undermine our trust in any ultimate Logic whatever. For an order that comes into existence by accident (or even by arbitrary decree) may become disorder by accident. And if it may thus become disorder, our laws of nature also are liable to disorder, a possibility Physics is compelled to deny. For though Physics may admit that its laws

are relative, it would commit suicide if it should admit that its laws could be accidentally overthrown.

A difference of opinion between Sir James Jeans and Sir Arthur Eddington on one aspect of the world order should be interesting at this point. Eddington writes, "I cannot accept Jeans' view that mathematical conceptions appear in Physics because it deals with a universe created by a pure mathematician." The mathematics is not there, he adds, "until we put it there." But the reasoning of this book should lead us to differ with both these distinguished scientists. Neither seems to see another alternative, namely, that either an order wholly physical came into the universe accidentally or that an order not wholly physical and accidental but in some degree mental and purposive, and therefore *psycho-physical*, has existed from the beginning. To deny this and assert that matter alone, or mind alone, is responsible for the order is to land us in Materialism or Absolute Idealism. But if the order was not created by a "pure Mathematician" or "put there by us," it must from eternity have coexisted in Nature, which includes the World Mind, together with time, space, and matter; an inference that confirms our conception of the Continuum which is identical with Nature.

Accordingly, to doubt that the order in the universe is psycho-physical seems hardly possible; likewise to doubt that it is to some extent purposive: for mind is innately purposive, its survival seeming to be dependent on its being so.

We must, therefore, choose between saying that order does not exist in the universe or that it is psycho-physical. And if the latter alternative is chosen we must say that mind has always existed, not that it made its appearance a few millions of years ago upon this or some other planet, as certain evolutionists, seemingly influenced by pre-Copernican ideas, are unphilosophically inclined to avow.

The importance of this reasoning to a proposed universally valid theory of Logic now becomes apparent. If the order in our experience and that in the universe about us is psycho-physical, we can see how there can be a correspondence between the two which would allow us to make trustable assertions about all of Nature, such as the "laws" of Nature seem to be. If no true correspondence exists, no trustable "laws" can be asserted and no universal Logic is possible. The outer and inner orders cannot in fact be separate to the point of opposition. They have merely seemed to be so when we have assumed that the World Mind, or our own, is not a component part of Nature but "metaphysically" outside of it; an assumption that has led us to suppose that a purely physical or a purely psychical order can exist. For a system of Logic to be universally valid it must, then, be so for the whole time, space, mind and matter order; in other words for Nature, the Continuum. And in that case the laws of Nature must manifestly be as much laws of mind, as of time, space, and matter. No law of Nature, therefore,

can be acceptable unless it is framed with mind as one of the terms of its equation.

Is this conception of Nature and of the psycho-physical correspondence between the world order and that of our experience correct? If so, let us consider its significance for Logic in the case of a specific law of Nature, that of the conservation of energy. This law was discovered by human minds and human minds have in a measure verified it experimentally. To do so wholly is impossible, for human minds can experiment with only a small portion of Nature. Undoubtedly, therefore, the law of the conservation of energy is only an inference concerning the whole of Nature drawn from experimenting with a part; and to be trusted at least two requirements must be met. First, the conception of Nature from which it is inferred must be right; second, the logic that frames it must be competent to draw universal inferences.

The only conception of Nature that will meet the first requirement would seem to be the one here advocated, that Nature is psycho-physical, that it is the Continuum in which time, space, mind, and matter are ultimate interpenetrating realities. And the only Logic capable of making universal inferences is one in which the laws of Nature are laws of mind as well as of time, space, and matter. And should any further confirmation of these two requirements be needed, consider the law of the conservation of energy with respect to its essential meaning that no energy in the universe is ever lost but is merely transformed into some other kind of energy. A satisfactory mathe-

mathematical equation has, we know, been sought for that assertion. But if such a mathematical equation now seems impossible to Professor Einstein, it may be so, as was suggested, not only because mind, which is not wholly reducible to matter, is not included as a term in it, but because space, time, and matter are infinites, and for infinites no ultimate mathematical equations are frameable. The law of the conservation of energy then is not only relative, it is also psycho-physical.

But granting that Nature is the psycho-physical Continuum here advocated, what Logic is competent to make universal assertions concerning it? If we will remember that our personalities are psycho-physical and that as parts of the psycho-physical Continuum they are penetrated by its mind, we can answer. Our Logic will then be one with the Logic of the World Mind, else we shall be compelled to admit that there is no single Logic in the universe which is valid for all minds; and to admit that is to overthrow all our knowledge. For if there are two Logics in the world, ours and that of the World Mind, ours must be at one with the World Mind's or different and opposed to it. We are either biologically deluded then or our laws of Nature, if true, must be so for the World Mind which is aware of the Continuum and of its place in it, as we are aware of our place. Nor will it be otherwise if we conceive of our minds as mere "streams of consciousness"; for the thinking that takes place in those streams of consciousness is necessitated by the same Logic as that which compels the thinking of the World Mind.

The laws governing our ultimately trustworthy thinking are, therefore, not only as universal as the laws of Nature, they *are* laws of Nature. For they are laws of our psycho-physical personalities which are parts of Nature—a fact that makes possible the correspondence between us and the rest of Nature, which also is psycho-physical.

An intermediate summary of our argument thus far is that while the origin of an ultimately valid Logic cannot be “metaphysical,” neither can it be merely physical or empirical. For though the human mind, which is psycho-physical, has evolved empirically from the protozoa, which also is psycho-physical, that fact is insufficient to supply us with a Logic competent to make assertions about the universe at large. *Such a Logic is possible, it would seem, only if we agree, first, that the universe is the psycho-physical Continuum of the four ultimate realities: and second, that we, also psycho-physical, are thereby participants in the Logic necessitating the World Mind which is immanent in the universe. For not until we so agree can we make assertions about the universe that are trustworthy and that will correspond with the assertions the World Mind must make. And that this situation could be negatived by the World Mind, should it seek to deceive us, is not possible. For to succeed in doing so that Mind would have to be able to destroy the world order to which the order of our minds corresponds.*

We can say, therefore, that mind and matter, far from being ontologically separate and opposed in Nature, act together psycho-physically to

make possible the framing of universe-wide laws of Nature, and so of a universe-wide valid Logic. Were they ontologically separable anywhere, our systems of Logic could have no validity except for our private use or pleasure. Like Psychology, a truly valid Logic must say that there is no psychological fact that is not also physical, and the reverse; else we shall have an ontological dualism in the universe which no single system of Logic can cover.

Before offering a final conclusion drawn from these views, the following considerations should be stated, considerations that may serve to confirm or clarify them:

(1) The conviction that mind did not originate in wholly mindless matter is becoming more generally accepted by scientists as well as philosophers. But if mind did not so originate, uniquely it is not only that which knows the universe, but is an organizing force so dominant in our experience and so powerful over portions of our environment that we hardly can believe it came into existence, by chance only, a few hundred millions of years ago on this or some other planet. If, moreover, it did not originate in matter, it must have been coordinate with matter from the beginning—in which case it did not originate on this or any other planet, for planets, presumably, did not exist from the beginning.

This in turn corresponds with the fact that no one has ever seen mind originate from matter; for minds, when they are born, are born psychophysical. Nor can we escape a Logic based on

the foregoing conclusions by saying that mind originated from a Monistic Substance. For Monism, which is after all but a dualism with its Substance on one side and the universe which has sprung from it on the other, knows nothing about its Substance, so cannot so much as assert that the laws of Physics apply to it. Yet if they do not so apply, if this Substance of Monism is metaphysically beyond their reach, they are not of universal application to the whole of existence. Therefore, no single system of Logic is possible if we accept Monism. Its Substance will be beyond the sphere of Logic as it is beyond that of Physics.

(2) Formal or classical Logic draws inferences from known premises. For a Logic of Discovery, however, no premises seem at times to exist—when a discovery is made. Yet to assume that our logical faculties, conscious or unconscious, have not been at work on such occasions, and so are in no wise responsible for the discovery, would be not only a repudiation of the worth of our efforts toward discovery, but also an invalidation of those faculties. For scientific and philosophical advances in thinking come only by demanding natural rather than transcendental explanations of facts, and if we admit that truth is to be arrived at transcendently we open the gates indiscriminately to any and every unreasoned supernaturalism.

The explanation of great discoveries, therefore, should be sought in the genius of the discoverers aided by the incalculable number and quality of

the inferences toward discovery previously made by their conscious and subconscious minds. Such a conclusion would serve at least to keep the continuity of the discoverer's psycho-physical personality intact against the "metaphysical," in a psycho-physical universe whose outer order corresponds to the order within our minds in a way to make a universe-wide Logic possible.

(3) It is the belief that the psychical and physical in the universe are separate that has made transcendental truth seem possible; and that belief also is partly responsible for our not fully realizing that deduction and induction are but phases of a single unified logical process. The universe is psycho-physical, but when we reason about it we think of it as either psychical or physical. If we think about it as physical, we perceive it as a multiplicity of objects which we seek to classify and interpret; and this classification is an induction. If, on the other hand, we think of it as a whole, we at once try to interpret it as a whole, without considering its parts; then we make a deduction. If from that point we wish to increase our knowledge, we have either to start with the above-made *induction* and reason to a more general induction, which is a deductive process; or we have to start with the above-made *deduction* and, going backward, discover and analyze the facts by means of which to prove the deduction is sound; and that analysis is an inductive process. Whether an inference is inductive or deductive, therefore, depends upon where in the logical process we start. We are actually using both in-

ductions and deductions in this way constantly, for only so is mental growth achievable. And this throws light upon the assertion that induction is merely the reverse of deduction. Just the opposite would seem to be truer. For when a deduction flashes upon us it is reasonable to suppose that facts and inferences at work inductively in the subconscious mind have been responsible for its appearance. Were that not so we could not later discover the proof of the deduction's soundness.

Let me give an illustration which, though personal, is particularly apropos of the general thesis of this book. In the preface to *Collected Plays and Poems* (1915), I wrote, concerning poetry of a rare sort, that "only by possessing or suggesting some ineffable connection with the infinite" will its art economy seem "divine." In *Trails Sunward* (1918), "Metaphysical Sonnets" appeared, a group of poems in which I argued that time, space, mind, and matter are *infinite and real*. In 1932, while seeking an explanation of what poetry critics call the "miraculous" or the "mysterious" or the "inexplicable" or the "divine" in certain poetic lines, the thought flashed through me as I recalled certain of these lines, that their "inexplicability" lay in the sense of the space-infinite they contained. Then a deduction instantly followed. It was that the time, mind, and matter infinities would account for the inexplicability of all other poetic lines the space-infinite did not cover; and that deduction I at once proceeded to prove by examining many so-called inexplicable poetic lines,

as the essay called "Poetry's Genii" in *Bridging the Years* (an autobiography) will indicate. In 1939 I wrote the first pages of this book which affirm that time, space, mind, and matter are not only mysteriously real infinities, but are the four ultimate interpenetrating realities of the universe.

Now consider the inductive and deductive methods at work in this chain of reasoning. At first, but not without much experience with poetry, I asserted that poetry must possess or suggest some ineffable connection with the infinite. That was a vague *deduction*, unsupported by any specific lines to prove it and with the term "infinite" undefined. Three years later, with this vague deduction still in mind, I wrote that the real infinities are time, space, mind, and matter, and that they have been infinite and inseparable from the beginning. This was an *induction* based upon many previous inductions and deductions and upon what experience I had had with these four infinities. The 1932 *induction*, which came when I was considering the "inexplicability" of certain poetic lines and which told me that this inexplicability lay in the sense of the space-infinity embodied in these lines, at once provided the *deduction* that the time, mind, and matter infinities would account for the inexplicability of all other lines; and for this at once I found proof. The next link in this chain of reasoning came in 1939 when I wrote the first chapter of this book and was startled to find a further *deduction*, that there is no one ultimate Reality back of the universe, but that time, space, mind, and matter are the

four ultimate realities beyond which no existence is conceivable; and for this deduction I found at once the *inductive* proof I offer in Chapter One. Surely an analysis of any such chain of reasoning indicates that all inductions are based on past inductions and deductions, and all deductions on past deductions and inductions, and, therefore, that induction and deduction are inseparable parts of a unified reasoning process. Surely that is true because our experiences are always psycho-physical, not merely psychical or physical, a fact which any Logic trustable for making assertions about the universe as a whole cannot afford to forget. For were it not so, and were our *immediate* experience not of the ultimate realities, time, space, mind, and matter, we could not surely reason about the universe but only about our ideas of it, which, not being based on *immediate* experience of it, might be wholly false.

(4) Logic is an innate necessity of the Cosmic Mind as well as of our own. The processes of Logic must, therefore, be one throughout the universe if ultimately true assertions about the universe are to be made. Only the claim that the origin of Logic is "metaphysical" has prevented us from seeing this. In all branches of Philosophy the belief in some sort of "metaphysical" reality beyond or above the ultimate realities of time, space, mind, and matter has caused the kind of confusion it causes here in the realm of Logic, where the formulation of a single satisfactory unified theory has been precluded by it. - If, however, we realize that the "metaphysical" is merely a

survival of Plato's mythical "ideas" and, therefore, is an appendix we can well do without, we shall the more readily see that Logic must have been innate in mind and so in the whole psycho-physical world order from the beginning.

(5) Every discovery is merely an insight into the World Order, a part of which we have already discovered; and each discovery leads us to a point where a further vision of other parts is possible. In making a discovery we dimly glimpse another portion of the order and articulate it with parts already consciously known or subconsciously adumbrated. We piece the two together, as it were, often without being aware of the subconscious inferences that inspire us to do so. And that is possible only because the psycho-physical order of our minds corresponds with that of the outer world.

(6) The World Mind did not "establish" the fundamental laws of Nature, the Continuum, any more than it "created" matter, time, and space. Being purposive it doubtless has some control of the whole of Nature, which includes itself. But in attempting to obtain and increase that control, it must have observed the necessitous, and therefore logical, characteristics of the world order co-existent with it from the beginning. Logic is, therefore, not an invention of the World Mind but a characteristic of the whole world order.

(7) A final summing up of the basic conclusions here advocated would seem then to justify us in saying that Logic deals with the origin, empirical development, and validity of our methods of judg-

ing truth, but that without a right ontological theory, one which accepts Nature as the Continuum of the four ultimate realities, we cannot have a right psychological theory. Further, that without a right psychological theory, one based on our immediate sense of the ultimate realities, we cannot have a right theory of Logic, which must be one derived from our psycho-physical correlation with the psycho-physical universe whose laws we seek to discover. Again, that without a right theory of Logic we cannot rightly arrive at ultimate truths about the universe, the truths we call its laws. And, finally, we must say that a right theory of Logic can have but one final basis, the belief that we are capable of making true judgments and so are not the victims of mere biological illusions.

CHAPTER IV

ETHICAL OBLIGATION AND RESPONSIBILITY

I

The "ivory towers" of Philosophy, as of the arts, have partly crashed under present day stresses. All who think must now stand level with humanity and see the world as it is. Pragmatism and Neo-Realism, forces breaching the old walls, have not been wholly able to assume new leadership, especially in the realm of ethical theory, where new vision is greatly needed.

It would not be difficult to maintain that lack of a satisfactory ethical theory is responsible for the seeming breakdown of present day civilization. Between the authoritarian Ethics of yesterday and the empirical of today the question of the origin of our sense of ethical obligation remains in dispute, and the result has been the weakening of our sense of responsibility in all spheres of life. Individually, nationally and internationally we are at sea, without ultimate authoritative guidance.

Since we are unable wholly to accept or disavow either the innate or the empirical theory of the origin of our sense of ethical obligation, attempts to unify or harmonize the two alone offer hope. M. Bergson, seeing this, suggested that the origin is dual; that we are born with an instinct to "aspire" and that empirically we find ourselves acting expediently under "social pressure." Yet

this hardly resolves the difficulty. For unless "innate aspiration" and "social Pressure" have a common origin in Nature, such an origin as will render the distinction between the two unessential, neither will supply us with an ultimate authoritative reason for ethical action.

If the problem is considered in the light of the preceding pages it may not seem so intransigent. Hitherto our discussion has been concerned with that portion of experience which we call mental or conscious. We first sought to determine mind's place among the ultimate realities of the universe; then to find a serviceable hypothesis that would cover all conscious or subconscious psychological phenomena in the universe. Next our quest, also particularly related to mind, was for a unified theory of Logic that would make possible the valid assertion of universal truths.

Approaching now the problem of Ethics, it will be necessary to base our considerations on a broader aspect of our psycho-physical experience than the merely mental; for ethical obligations and decisions involve emotional and motivated volitions that result in conduct vitally helpful or harmful to ourselves or others. They are, moreover, decisions for which we hold ourselves, or are held, responsible. Consequently, ethical values are not merely mental, but are those we attach to motives, emotions, volitions and actions for which, as free or as determined agents, we accept or reject responsibility. They are decisions involving the whole psycho-physical self, not merely the mind or will. And for that reason

they are of more practical importance than any other.

This is merely saying that Ethics deals with selves and with the relation of any one self to all others, including the World Self and animal selves. For no reasonable biologist today would deny that animals have selves capable at least of some degree of ethical emotion or obligation. The vivisectionists, therefore, are on partly tenable ground, though they must admit that their position is too narrowly conceived. For, since there are times when even the highest human selves must sacrifice or be sacrificed for the welfare of all selves, animals also must take their share of the sacrifice to make life on this planet better worth living.

Until now I have used the word life sparingly because of its many meanings and connotations, but at this point life's place in the scheme of things must be examined. In order to achieve a statement of the ethical theory here to be offered—a single theory unifying both the empirical or evolutionary and the innate or intuitive points of view—a right conception of life's place in Nature, the Continuum, will be essential.

The problem of so placing it is similar to the problem of placing consciousness, and can best be broached by recalling Pasteur's assertion that life can come only from life. At the moment (May, 1941) a group of California scientists has announced that the mesotron of the atom is the agent which binds electrons together and that this "discovery" will lead to the possibility of producing life in the laboratory and, therefore, to

the solution of "the mystery of life." Just now, also, Dr. Wendell M. Stanley announces that he has chemically produced a substance which is "half dead" (inorganic) and "half living."

If the atom is psycho-physical, as this book urges, such attempts as these to produce life from anything but life are as destined to continued disappointment as were Professor Einstein's efforts to find a mathematical equation expressing the relation between time, space, matter, and energy. For if we admit that the atom is psycho-physical we must also admit that it is bio-physical, and, therefore, that some degree of life as well as of consciousness has existed throughout the universe from the beginning. Producing life "chemically" will still be producing it only from life, however valuable such laboratory experiments otherwise may prove to be.

The difficulty here lies in our persistent belief that there must be a fundamental difference between the organic and inorganic realms of matter. We habitually think of mind as existing only in men and animals, and of life as existing only in men, animals, and plants, but not also in the "inorganic" rest of Nature. If it can be shown that life, as well as mind, is psycho-physical therefore exists everywhere, as does mind, the ultimate distinction between the organic and inorganic realms must be discarded.

That life is not a late comer in the universe has been previously argued; and if that contention is right it should not be difficult to believe that life, like mind, is indeed psycho-physical. For

though we may not be able to assert flatly that wherever life exists consciousness exists, we cannot deny that wherever consciousness exists some degree of life exists; that all conscious beings are living beings. So, if the universe is psycho-physical, if it has an immanent consciousness, it also has an immanent life; it is, in other words, an organism that is bio-physical as well as psycho-physical. And for Ethics this means that it possesses a Self whose ethical phenomena will have to be covered by any theory that pretends to universality.

But what is life? In attacking the problem of ethical obligation we must answer, and the answer usually accepted is that a living thing is one which spontaneously grows and develops a specific form in a nurturing environment by means of forces inherent to itself. If that definition be acceptable, the question of the origin of ethical obligation manifestly will depend upon the answer to the broader question, Whence comes the ability of a living thing to grow and develop a specific form?

Is this ability wholly empirical, the mere result of atomic accident through evolutionary time, or was the power of living things to grow and develop inherent in atoms of the universe from the beginning?

The answer first given to these questions seemed simple and adequate. It was merely asserted that the "process of evolution" was responsible for the origin and development of life and living things. Then it became impossible to rest on that statement. For on further consideration it was found

necessary to ask whence came the "process of evolution" itself; and answering that question threw us back on the necessity of answering an infinite regression of "origin" questions. Moreover, we now realize that to believe mere physical forces accidentally produced even one living thing is to believe in more than miracles; and to believe that these forces produced hundreds of thousands of living things, together with the evolutionary process responsible for them, requires nothing less than infinite credulity based upon a fatuous acceptance of materialistic interpretations. To credit the contention that life, growth and development existed in the universe from the beginning seems vastly more reasonable.

It is only another muddying of the philosophical waters by an unnecessary Metaphysics that prevents us at once from admitting this. Those who have contended for the idea of the innate ability of living things to grow and develop usually have attributed this innateness to a metaphysical Creator *outside of Nature* who produces living things without Himself being the actual life and mind of them. Or, if such contenders are Idealists, they have merely held that living things are but mental things created out of the Absolute Divine Mind itself.

If, however, we discard the metaphysical idea that the stuff of the universe has been "created" out of and by either mind or matter, or out of a Monistic "Substance," the problem of life's place in the universe will become less incomprehensible. Only, it would seem, by realizing that Nature is

the Continuum of ultimate realities, in which powers of growth and development have always inhered, will Ethics, when discussing the problem of ethical obligation, escape from the trammels of Metaphysics and from the confusion metaphysical conceptions have brought into all spheres of Philosophy. For an ethical self is a psycho-bio-physical self in a psycho-bio-physical universe, and it is upon the right conception of the relation of all selves, including the World Self, to the rest of the real non-metaphysical universe that any universal ethical theory must be based.

When Pasteur made the assertion that life can come only from life doubtless he was thinking of animal and plant life only, not of the possibility of life existing in inorganic matter. Yet if life always accompanies consciousness, and if all degrees of consciousness exist in the universe, it is manifest that all degrees of life exist. And unless our fundamental scientific theories are mere intellectual fairy tales, that assertion is not lacking in observable as well as theoretical evidence. For we are informed that in all substances, organic or inorganic, there is an "agent" or "order" that determines the position, number, and motion of electrons in atoms, and that it is from this order (which Quantum Physics asserts to be irregular) Science seeks to discover the secret of life. We are also informed that crystals, which are "inorganic," grow, as do plants, and that the line we draw between plant and animal life is not absolute. It would seem, therefore, that *some* degree of life

activity exists throughout the whole of "inorganic" as well as of "organic" existence.

In the experience of human selves, with whose obligations relative to each other Ethics especially deals, we observe and believe that what we call life is psycho-physical, however difficult we may find it to believe that mind is. Individual life and consciousness are born together and seem to end so. But if they do so end, that *universal* life existent in all atoms is still present in our dust. Therefore, we are justified in asserting that if life is psycho-physical anywhere, as it undoubtedly is in us, it is psycho-physical everywhere. Nor would there seem to be any adequate reason for denying this. For a psycho-bio-physical universe is as easy to accept as a purely physical one from which life and mind have accidentally sprung through atomic motion.

By accepting a universe not "created," one in which the life powers of growth and development were inherent from the beginning, the problem of the innate or of the empirical origin of ethical obligation can find a resolution. The assertion that this origin is exclusively empirical, that in the course of time men and the lower animals have found it "expedient" to accept an obligation to act in certain ways, neither can nor need be denied. Indeed to deny it would be to deny the real existence of growth and development themselves. On the other hand, the (empiricist) assertion that ethical obligation begins only when two or more selves are involved, hardly seems to be justified. That it is partly developed by such

“social pressure” is indubitable. But if we are to frame a satisfactory ethical theory we must realize that ethical obligation is but a phase of the primal obligation an individual would feel to grow and develop were he alone in the universe, an obligation that is universal as well as primal.

Let us see whether this is true. That I act “expediently” when two or more selves are involved is quite certain. But in doing so I do not renounce the innate obligation I would feel to consider *my* self were I alone in the universe: I merely consider it “expedient” to consider other selves also. I find that it pays better to do so, materially, socially, or spiritually; that the instinct to grow and develop, inherent in life, impels me to compromise with mere individual desire and that I gain more by the compromise. I come to realize that the law of self-preservation is a social law, that it exists for others as well as for me. And when later I accept the higher injunction to “do unto others as I would have others do unto me,” I am not foregoing the contention that the origin of ethical obligation is “expediency,” but am realizing that another kind of expediency, social expediency, may better promote my growth and development. While the empiricist is right, therefore, in finding the origin of ethical obligation in expediency, he must realize that the expediency does not come merely from social pressure but would exist for one self alone in the universe. He must admit that the instinct to act expediently is a primal, *innate* function inseparable from the life of every self.

If the individual self, or, for that matter, the primordial first germ, is born with the instinct to act expediently, as the empiricist must admit, and if that instinct is developed empirically partly through "social pressure," as both intuitivist and empiricist must admit, what is there to prevent the conflict between the two from being resolved?

It would seem that two things, chiefly, have done so.

First, a belief that an *absolute* World Self, *outside of the universe*, has arbitrarily "created" it and its order, which would mean that the origin of ethical obligation would lie in this decree, not empirically in expediency. For with such a conception of the World Self we are not content; either we deny its existence and, therefore, the existence of any ethical world order among selves, or we deny that the order such a Self seems to impose is *in fact ethical*, when it seems *inexpedient to us*.

Second, our belief that moral instincts, laws, and customs have varied so greatly among different peoples at different times and places that we can suppose only that our sense of ethical obligation has sprung up wholly empirically through evolutionary time under the expediency of "social pressure."

Setting aside for the moment the first belief, is the second justifiable? Perhaps we must admit that it is if we deny the existence of any ethical World Self whatever and assert that the sense of ethical obligation is confined to selves on this or other planets. For in that case the innate instinct

to be expedient would necessarily be wholly empirical, an accidental acquisition of planetary experience only.

But what if there is a World Self of a different kind, one *within* the universe and struggling with its time, space, and matter, as we do, one which has always felt the expediency of the obligation to grow and develop of which ethical obligation is a part? Would not expediency then be the source of ethical obligation for this World Self as for us? Should we have the slightest objection to admitting, were such the case, that ethical obligation, born of expediency in the World Self and inherited by us from it, is innate in us as well as empirically developed through evolutionary time? Nothing arbitrarily decreed would exist in such an inheritance, but our sense of ethical obligation could then be said to have a *double* origin in expediency—in our own and in that of the World Self.

This book has directly or indirectly argued for and accepted the existence of a World Self, and upon that argument many of its conclusions are based. I reasoned in the ontological chapter that mind, a part of the World Self, is one of the four ultimate realities of the universe, one that cannot conceivably be derived from or reduced to any other. In seeking a universal hypothesis for Psychology I contended that any such hypothesis must cover the psychological phenomena of a possible World Consciousness. Then in seeking a unified theory of Logic, one capable of giving us trustable universal truths, I urged that no universal truths

are really possible unless there is a Universal Mind whose reasoning is the same as, and one with, our own. For our minds alone cannot make trustable universal assertions, nor could they were there a Universal Mind whose logical processes fail to correspond with ours: for in that case we should have two contradictory Logics in the universe and ours, presumably, would be the wrong one.

Now proceed from a World Mind to a World Self; for manifestly a World Mind implies a World Self, and if there is a World Self, it is a growing, developing Self which feels the expediency therefore the obligation to promote its own growth and development. This obligation is inherent, and undoubtedly is ethical if the World Self is in any wise entitled to consider its own interests, or if it is cognizant of the existence of other selves whose growth and development it may help or hinder. Also it is an obligation which would be inherent in all lesser selves in the universe. For these selves are psycho-physical inheritors of the selfhood of the World Self integrated with them and are, therefore, endowed with the inalienable sense of expediency of the obligation to live, grow and develop. Admitting expediency, therefore, as the source of ethical obligation in all selves, the World Self included, we should find it possible to frame a satisfactory ethical theory covering all ethical phenomena, a theory that is empirical but based upon the innate sense of expediency all selves feel under to grow and develop. While innate with us, then, the sense of ethical obligation also is doubly empirical, since it is an inheritance

derived from the sense of obligation to be expedient which both the World Self and we have felt.

That we also learn the *art* of being expedient empirically, we know. When it was said that the "process of evolution" was responsible for originating life and consciousness, we were compelled to ask, But what originated the process of evolution? So, when we say that the origin of ethical obligation is empirical, that we have merely learned it is expedient to feel ethical obligation, we are compelled to ask, But whence came the original ability to learn by the process of evolutionary experience? The answer can be only that we who are inheritors of the life of the World Self, are born with the necessity of growing and developing which that Self finds to be expedient.

Partly summarizing here, we can say that all selves feel it expedient to grow and develop; that the inborn sense of expediency causes them to strive to grow and develop, and that when they fail to do so they suffer a sense of loss, therefore feel a sense of responsibility. Accordingly, the sense that it is expedient to grow and develop is an inalienable characteristic not only of our selves but of the World Self, the Self of the Continuum of time, space, mind, and matter, with which we are integrated as inheritors. The obligation to act expediently is innate with It as with us. That obligation is developed in It as in us by experience. And it is in this process of development that our conflicting codes of ethical obligation and responsibility arise at different times and places. Ethical obligation, as we have said, is innate,

though naturally the innateness can appear only in experience. In truth, separate innateness from learning by experience is logically impossible. They are parts of the one process of growth and development.

This view of the nature and origin of ethical obligation not only enables us to rid ourselves of the conflict between empiricism and intuitionism, but also makes it possible for us to dispense with any authoritarianism whatever in our ethical theories. According to it ethical obligation is not based on any *arbitrarily* established moral order, with laws and commandments devised inviolably for all time, but upon the universal necessity all selves—including the World Self—are under to be expedient in growing and developing.

The authority our moral codes possess, therefore, is founded only in the expediency of growing and developing which we ourselves, as well as the World Self, feel. Were the World Self absolute over its environment, time, space, and matter, it could lay down absolute moral, mental, and physical laws; but not otherwise. We inherit its sense of expediency, but only imperfectly, so must ourselves struggle to discover just what is expedient. We have a sense that what is expedient for It is expedient for us, but we do not know certainly at all times just what is *truly* expedient. Therefore whatever authority our codes possess derives from our own experience as to what is expedient as well as from that we inherit from the World Self, so is not arbitrarily decreed. Consequently, we are not only integrated psycho-physically, bio-

physically and logically with the World Self, but ethically also; and the hereditary ties between the World Self and Human selves is not essentially different from that between human selves only.

How could it be otherwise if the universe is a living organism, not a dualism of organic and inorganic matter with mind attached to the organic only? The world order, we should admit, is a biological and organic order, and the ethical order, derived from the expediency every self feels to grow and develop, is an inalienable part of it. Ethical authority derives, then, in a *triple* way from the sense of expediency the individual self inherits from the World Self and develops under "social pressure." It is individual, social and "divine" in origin, provided the divine Self is not considered as an arbitrary Creator, a metaphysical Self outside of Nature so not subject to the limitations of time, space, and matter, as we are. For being within Nature it is under the same sort of limitations and obligations, including the ethical, as are incumbent upon us.

Our reasons for hesitating to believe in an ethical order inherent in the whole psycho-physical order of the universe are, however, not only the two we have given. There is another, namely, our almost inveterate habit of thinking of the order of the universe, and of the universe itself, as being physical only. But if we admit that the universe is psycho-physical and bio-physical, that it has a Mind and Self, there would seem to be no reason for not supposing that that Self has a sense of ethical obligation to itself and to us. If it is a

Self that lives, grows, and develops, it could not escape having a sense of obligation to itself and to us who are integrated with it.

Accordingly, we may define Ethics as the systematic study of that portion of our experience, conscious or subconscious, in which motives considered as expedient, and for which selves hold themselves and each other responsible, lead to right or to wrong conduct hence to the quickening or the prevention of self-growth and development. And we must add that if we expect to frame a theory of ethical obligation and responsibility that will be universally valid, it must derive from the sense of expediency innate to and experienced by all selves, the World Self included.

II

The conception of "ethical responsibility" widely held today is in origin ecclesiastical rather than philosophical. It derives from the Medieval Church's doctrine that unbelievers and unrepentant sinners would be punished by being cast out into "outer darkness," where, to quote the exact words of Christ, "there shall be weeping and gnashing of teeth." This was a condign punishment, and the creed makers found it could be acceptable only if the guilty were declared to be *absolutely* guilty and so totally deserving of it. But in a world where "the sins of the fathers shall be visited on the children unto the third and fourth generation," how could anyone be absolutely guilty? The answer was one destined to cause long confusion to both Religion and Phi-

losophy. "God," the answer ran, "has given all men absolute free will to choose any course they please, therefore all men are absolutely responsible." And of course the implication was that if they failed to choose God and Church, they thereby condemned themselves eternally.

That this doctrine of absolute free will is contrary to all common sense experience and likewise is a philosophical impossibility was not seen then, nor is it clearly seen now. If such an absolute ability exists for us, it would have to be wholly independent of our desires or it would not be absolutely free. To be thus independent it would have to be outside of our characters, and if it were thus outside it could not be *our* ability. Nor could we say it is God's, if He has given, could or would give it to us. In truth, it would belong to no self, therefore would not be a mental or volitional force at all.

Unless, therefore, it is a mere material force, in which case matter and not we or God would determine our actions, it would have to be an abstract or neutral force we take hold of. But if it is a neutral force, if it is neither mental nor physical, it would have no inclination whatever toward either right or wrong and the course we choose by laying hold of it would not be a free course, but merely *our* course, one determined by our characters and inclinations, not by it.

Or consider the point this way: My ethical decision, if it is to be really mine, must be made within and by myself. If, notwithstanding that, I say I have absolute free will to choose the course

I please, my pleasing to choose any course must be a want: a want becomes a motive, and the motive I please to choose determines my course. That we never "please" to take a course without some desire to do so is an indubitable psychological fact. And it is equally impossible to refute the assertion that the desire we please to follow is the prevailing one of those presented to us at the moment of choice. For if we say that free will comes in and decides our course, where does it come from, and whose is it? If it is not *our* will we do not do the choosing; it does. If it comes from God, He does the choosing. If it is a mere physical or neutral force coming from nowhere, we are not responsible; it is. If God puts it at our disposal, He must neutralize it against any inclination toward good or evil; yet whether He does or does not so neutralize it, He would be responsible for putting it at our disposal; and if He did neutralize it, it would not be the *determiner* of our decision. The conception then, of an absolutely free will appears incredible and contradictory. Such a will could exist only as the will of an Absolute Self, if such a Self were conceivable; and that Self could not give it to us and still be absolute. Stripped of confusion the conception of free will, therefore, is a mere metaphysical abstraction, like Monism's "Substance," with no assertable content whatever.

Again, and from another angle, if it is *our* will, it is not free, and if it is God's, He is responsible for it; while if it is neither ours nor His, it is neither a will nor free, for it belongs to no self.

Can we say it is a mere physical force then? No, for, if we do, no self could be held responsible for any choice: matter would be controlling us. And if we try to escape by saying it is a psycho-physical force, we are no better off, for in that case it would still of necessity be partly ours or partly God's. The existence of a free will that is neither mental, physical, nor psycho-physical is, therefore, wholly incredible, and to give it to us God would have to give what He does not possess and could not create; what in fact is inconceivable. For freedom, unlike chance, is a quality of selfhood, a value, not a mere quantity of something capable of being *wholly measured in quantitative terms*, even though we speak of having more or less of it.

But if what we call absolute free will does not exist at any moment of our lives, in what sense are we free?

Many physicists have relinquished the idea of absolute causation in the universe as well as of absolute freedom, for absolute causation seems as impossible as absolute freedom when we come to explaining life which grows and mind which knows. Absolute freedom, if it existed anywhere in the universe, would, as we have said, have to belong to an Absolute Self; and if it could be given to us, the moral responsibility for our using it would at least have to be divided between us and the Self which gave it. Conversely, to have absolute causation, which Quantum Physics at least rejects, we must have an absolutely materialistic universe, with no real self or will possible in it. Therefore, in an absolute universe, either mental

or physical, no freedom of will is conceivable, even relatively, if by relatively we mean at any moment of our lives.

To escape from the morass of such thinking we must give freedom a different meaning. We must not speak of the will being free, as if the will were a force separate from the self. We must speak rather of the freedom of the whole self, moral, spiritual, mental, and physical, from all the forces and hindrances that enslave it: and for that kind of freedom the ability to choose evil would be a liability not an asset. Having realized this, we must, if we believe there is a World Self, also believe we are ethically as well as logically and psychologically articulated with it. The vital question for us then would be this: If we inherit selfhood, including a sense of obligation, freedom, and responsibility, from the World Self, in what sense is *that* Self ethical? In what sense does *It* possess freedom?

The prime characteristic of life, admittedly, is a spontaneous ability to grow and develop toward a specific form. A strict empiricist, accepting this, believes that our sense of ethical obligation and responsibility originates in social expediency only, though he usually adds that Nature, which he often equivocally calls "she," is responsible for all growth and development, notwithstanding the fact he denies that Nature possesses any Self whatsoever.

If he is right in believing there is no Self in Nature, that it is at bottom wholly atomic, he must also believe that life, growth and mind have

sprung from mere chance combinations of atoms. But if the reverse is true, if life, growth, and mind did not spring from these chance combinations but were inherent in Nature, the Continuum, from the beginning, we can surely say that the World Self possessing them felt obligated to struggle for them in its environment of time, space, and matter. And that struggle could mean only that the World Self was not and is not omnipotent; that It no more than we has the absolute free will to do in all things as it pleases.

Since, however, we undoubtedly feel at times an absolute sense of freedom, as must the World Self to a vastly greater degree, what is the source and what the meaning of that sense of freedom? Will answering that question make for a better understanding of the whole problem?

Perhaps it will if we can analyze our experience properly. For such an analysis may provide us with a conception of freedom that will prove theoretically as well as pragmatically acceptable. However, a preliminary to this answer must be that there are many sources from which our sense of freedom is derived, not merely one.

Beginning with the most fundamental, let us mention some of them:

(1) We have reasoned that time, space, mind, and matter are ultimate infinite realities which we experience *immediately*. But an infinite reality seems unlimited, unconfined, therefore free. So in experiencing these infinite realities we ourselves feel infinite, as in a sense or to a degree we are, else we could not experience them, or be

truly integrated with them, or even conceive them. Finite experience, in other words, is impenetrated by the infinite, for finiteness has no meaning apart from the infinite. But to feel infinite is necessarily to feel boundless hence free. We cannot, speaking illustratively, so much as let our thoughts rove through infinite space or time without feeling somewhat infinite and free.

(2) The World Self must have an immense interest in understanding its environment, time, space, and matter, and in promoting growth, development and order in them and in itself. But understanding anything gives a sense of freedom, for understanding leads to mastery and mastery means freedom.

(3) If the universe is psycho-physical, it is a living, growing thing; and a feeling of growth in a conscious living thing always gives a sense of freedom. Indeed we never feel so fully and inspiredly free as when we are developing in harmony with the forces of Nature at work in our growth, as when our psycho-physical growth is proceeding uninhibitedly in accord with that of all Nature. The World Self would derive a great sense of freedom, as do we, from its sense of harmonious growth.

(4) A sense of freedom comes with a conscious mastery of ourselves, as well as from a mastery of our environment. In proportion as we fail to master ourselves we feel weak, therefore not free: for without self-mastery there is no true sense of freedom. Hitler marshaling irresistible forces may conquer Europe, but unless he is ethically

insane he must know that he has not really mastered a continent but merely has enslaved it, so has failed. And, incidentally, we must admit here that we may defeat his armies but cannot philosophically refute his creed that "might is right" so long as we hold the belief that our sense of ethical obligation and responsibility derives empirically from our sense of expediency only, not as well from that of the World Self. Hitler's victories, therefore, can give him no true sense of freedom but only a realization that he must enforce slavery with further violence and brutality. The enslaver never feels fully free, he is always enslaved by a sense of the evil he has done, and by the hate or fear of those he has enslaved. Truly to master others we must do so for the sake of their growth as well as of our own or we will not be mastering ourselves in a way that gives a sense of freedom.

To the World Self this would particularly apply—unless it is an absolute Self, in which case it would not feel the need to grow and master, or to help us master ourselves, or even to "create" us; for growing and mastering imply incompleteness, and an Absolute must be complete beyond all need. But if an Absolute Self did indeed deliberately create us and in addition present us with free will by means of which we can injure or destroy ourselves and others, It would feel a sense of enslaving remorse rather than freedom, provided It is ethically as high as we. However, if we have not been deliberately created, but have sprung partly from the necessity to grow immanent

in *all* Nature, which includes the World Self, that Self would find freedom in self-mastery, for self-mastery would better enable It to master its time, space, and matter environment.

(5) A sense of freedom comes to us in proportion to the number and difficulty of the portions of our environment we master, or, in evolutionary terms, in proportion as we wholly adapt ourselves to our environment. Not infrequently one who has mastery in but a single sphere—an inventor, a poet, a composer—feels imprisoned and enslaved when out of the range of his particular province. The more complete our adaptation to life, the freer we feel—and are.

(6) The laws of the universe are not arbitrary decrees set up in the rest of Nature by the World Self. They describe the relations that exist between the four ultimate realities of the universe, and perhaps also the habits which the World Self, one of these realities, has acquired in its struggles. That Self's mind perceives that Nature, which includes It, has grown organically with It according to an order inherent from the beginning, an order increased by whatever understanding or mastery of environing time, space, and matter It acquires. We also, through mastering ourselves and a small portion of Nature, increase the World Self's mastery and, therefore, the sense of freedom in the universe. By opposing such mastery or by failing to seek to acquire it, we have the regretful sense that we have been mastered by Nature, that we have gone against what the developing World Self is

striving for. When, therefore, we strive for what the World Self strives to obtain, we feel free; when we do not so strive, we feel ill at ease or even enslaved. When we positively misuse our mastery for an end that is not in accord with the ethical expediency the World Self aspires to, doubt eats at our sense of freedom. We feel that we are men bound to a non-developmental purpose, and no amount of success with that purpose gives us a real feeling of freedom.

(7) Feelings of health, joy, love, etc., give us a sense of growth and so of freedom. Also contributing to this sense mysteriously and powerfully, though we are usually unaware of it, is the fact that many of our ethical decisions are made in and by the subconscious mind. And it is particularly in instances of this sort that free will *only* seems to have been responsible for the decisions we make.

Without further analysis, which would seem unnecessary, we can say then, speaking generally, that full mastery of ourselves in adapting ourselves to our environment promotes the sense of growth and development which all selves most want; and that it is from that source, not from an unearned and impossible gift of absolute free will, that our frequent sense of absolute freedom comes. For a true sense of freedom can come only in that way, from an inherent ability the self has to grow and acquire freedom by growth and mastery, in harmony with the instinct to grow immanent in the whole life of the universe. Either pursuit of our own legitimate interests or

devotion to altruistic aims may increase this ability; for from the World Self we inherit the expediency instinct obliging us to consider both ourselves and others, if we wish to be free. And by effort we can acquire more of this ability and so more freedom.

The World Self does not, and doubtless cannot, transmit to us equal amounts of this ability at birth any more than we can transmit to every cell of our bodies an equal amount of the forces of life and health in us. Therefore, the World Self, not being absolutely free, cannot be held absolutely responsible for our sufferings, nor consequently can It absolutely punish or reward us accordingly. Pragmatically we must and do hold ourselves responsible if we do not follow our instinct to acquire expedient mastery, and so freedom. For we have had from the beginning the instinct to learn that we miss or suffer much by failing to do so, and are punished by other selves if our lack of mastery hinders or harms them. If we think the World Self created us arbitrarily and made a bad job of it, we feel abused, and rightly so. Therefore, we must think of ourselves as growing parts of the whole of Nature; as beings who, like the World Self, are subject to the necessities of time, space, and matter. For it is the whole of Nature, not the World Self alone, that partly determines our destiny, though confirmation of that must be postponed for later discussion. Meanwhile we need only remember that things in the universe are as they are, and that the World Self itself cannot wholly change them.

If, however, neither absolute causation nor absolute free will exists in the universe, it will be asked what responsibility rests upon us to act otherwise than as we do? Clearly none that is absolute, in so far as absolute blame or punishment here or hereafter is concerned. For in a relative universe no self, human or divine, can lay absolute blame at the door of another.

How, then, shall we account for the fact that most of the time we believe we *could* have altered circumstances and acted better, and that we should have done so? Must we not say that, in a universe in which growth and order are incomplete, we, who are growing parts of it, not only feel its impulse toward completion, but consider that impulse as expedient and desirable to promote? In the World Self, as in us, desire and impulse are not separable; desire is merely impulse become conscious. Accordingly, it is the conscious impulse toward growth and development inalienable to all self-life that makes us feel we should do better. We cannot and need not go back of that and say we feel we could do better because Omnipotence has endowed us with the free will to choose whatever course we please. What we can say is that we inherit from the World Self some portion of its spontaneous sense of freedom and of its ability to achieve freedom; that we are born with a quota of its psychobio-physical mastery of its environment, which is also our environment. *It* necessarily tries to increase *its* mastery, as we do. Every instinct of its life pushes on toward that. And in propor-

tion as It succeeds we shall feel that *we* can and should succeed. Without this impulse toward growth and completion life would not be life nor would freedom of any kind be conceivable.

Correspondingly, the sense of failure we have and the "punishments" we suffer are not divinely "ordered." The penalty we pay for failing to strive toward development and completion is one of loss which for practical social reasons we call guilt. But theoretically no guilt should be considered as ultimate, a fact which the Purgatory of Catholicism recognizes. What we get at birth is then an inheritance from the living World Self as well as from our forbears, but this inheritance is not a specific gift of free will which makes us ultimately and finally responsible. And, apropos of this, whether in moments of need we can attract to ourselves more of the World Self's life, and whether the World Self, conscious of our want and need, aids them, is a question that must be postponed. Here I would merely stress that accepting absolute causation means accepting a mechanistic universe, with no real self, life, growth, and development in it; and that accepting a universe controlled by the Absolute Self of Idealism comes to the same thing. Only by eschewing absolute Materialism or absolute Idealism can we escape absolute determinism. Only by accepting biological indeterminism, which means accepting a living, growing, conscious, therefore, partly incalculable universe, can freedom or becoming free have any meaning at all. For it is the incalculable in life and growth that

makes us think we can do better, and when through growth and effort we find that we can, we feel free.

Moreover, consider this: Growth undoubtedly brings with it a desire for more growth, and that stimulates a striving to remove all inhibitions to our growth. How much the innate impulse to grow which exists in the life of the universe can be increased by the purposive striving of the World Self or by our own, is unknowable. We feel and believe only that we could have done better and cannot escape the belief that we must be guided by that feeling. Nor is there more reason to distrust the belief that we can do better than to distrust the belief that we can make true judgments. Both beliefs are innate and inalienable to the self. We make mistakes in our Logic. We make mistakes in our ethical judgments and in framing our moral laws. But we can no more escape believing in moral obligation and responsibility than we can escape believing that we can, should, and do, make true judgments. Self-preservation and growth require of us both beliefs. And of course no self can claim the right to self-preservation which does not allow that right to others.

Again, we are compelled to trust that purpose can bring growth and the fruits of growth, as we are compelled to trust that true judgments can bring knowledge and the practical achievements whose source is knowledge. A faith in true judgments brings us useful discoveries. A similar faith in moral decisions brings intensified growth,

protection, and freedom. "Aspiration," which M. Bergson rightly insists is innate with us, is truly but the universal impulse to grow, become conscious, and purposive. Only when we cease to feel within us the desire and ability to grow do we cease to feel that we could have done better. For growth, which is an incalculable propensity of the psycho-bio-physical universe, gives us the sense that we can do better, for the very reason that its force is incalculable, and that we are willing to take an incalculable chance. We feel freer and so happier when we act in harmony with this propensity and more enslaved when we act against it. But how much any individual is worthy of ultimate blame for not acquiring freedom, no one can say. We know only that for practical reasons we must blame the lack of it in any selves. Correspondingly, though we may be compelled to deprive individuals of freedom for life, or even to put them to death, neither we nor the World Self can assert that, in an indeterminist universe, they are absolutely blameable. Nor, for the same reason, can an individual wholly condemn himself. Judgments of praise or blame, therefore, can never be final philosophical judgments. They are merely aids and reminders to promote and protect our growth and development.

Were absolute free will possible, the free will to do a harmful thing would not be freedom, but license that would result in the doer's enslavement. An absolutely free man neither could nor would do an enslaving thing, nor would he

give another the ability to do one. For a free will which would strike against freedom is not free.

What, then, is our ethical relation to the World Self? If we believe such a Self exists and that ethical obligation exists for It, we are compelled to believe It has a wider apprehension of what is needed for universal growth and development than have we ourselves. We must believe that the order in the universe, an order the World Self is conscious of and that growing impels it to promote, is not only a psycho-bio-physical order, but for that reason also an ethical one in which we participate. To believe in an a-moral order would be as unreasonable as to believe in an insane World Self, and to believe in an insane World Self would compel us to believe no world order exists, and, therefore, that no trustable universal judgments are possible.

CHAPTER V

AESTHETIC EMOTION AND CREATIVENESS

I

That the field of philosophical Aesthetics is still in a state of primitive tillage may be due in part to our carrying over into the realm of theory whatever skepticism the maxim *de gustibus* embodies. Also it may be due, as Will Durant thinks, to a belief among some philosophers that there is something "pagan" and "illogical" in asking questions about beauty. The main cause for such backwardness, however, would seem to be that our thinking has too often failed to realize that the fundamental problems of Aesthetics run parallel with those of Psychology, Logic, and Ethics.

A consideration of efforts made to define the beautiful will at least partly corroborate this assertion. Socrates, the first Greek to attempt a definition of the beautiful, declared that it is "the good and useful." But this definition is merely that of the moralist, as Keats' exclamation that "Beauty is truth, truth beauty" was merely that of the poet. What is worthy of notice in both definitions is that the beautiful and the true are closely linked, thus unconsciously associating Aesthetics and Logic.

Plato and Aristotle, attacking the problem, defined beauty as residing in order, proportion, and

symmetry; and by doing so planted the seed of the modern question as to beauty's objectivity or subjectivity; that is, whether it resides in things or only in thoughts. Physical beauty, no doubt, was what primarily they had in mind, but Plato half glimpsed the subjective aspect of beauty when he exclaimed, poetically also, that "the beautiful is the brightness of the true."

Plotinus, the neo-Platonist, also had mere physical beauty in mind when he asserted that Beauty "is an attribute of everything that exists." It may have been this assertion that prompted Thomas Aquinas to declare that beauty "is the result of a close connection between things and our impression of them," an opinion that reveals the beginning of a definite shift toward the modern belief of many that beauty is wholly subjective; that it is not in things, but in the mind only.

The fact that no treatise on Aesthetics was written until Baumgarten gave the subject its name in the Seventeenth Century is remarkable. It was that writer also who defined beauty as a "perfect sense of knowledge," and who first came to the conclusion that beauty is a psychical rather than physical fact, thus completely reversing Plotinus. Kant, accepting Baumgarten's conclusion, gave it greater weight by avowing that "the subjectivity of beauty is no longer merely a fact, but a law." And since Kant, for whom the problem of beauty was minor, the question of the subjectivity or objectivity of beauty has, with much reason, played an increasingly important

role in aesthetic discussion. For it is a question that involves not only the nature of beauty, but its origin as well, therefore is as fundamental to aesthetic theory as similar questions of origin to Psychology, Logic, and Ethics.

Before dealing with it, however, other suggestive definitions of beauty should be recalled, definitions with a religious, metaphysical, biological, or hedonistic slant. The Hegelians were plainly in the realm of pure Metaphysics in avowing that "the beautiful is an impersonal manifestation of Being," as also were the Herbartians in declaring that beauty is "a perception of the relations between form and content." Schopenhauer, obsessed by his conception of the Will, was no less metaphysical in expressing the opinion that beauty resides in "the perfect emancipation of the intellect from the Will."

Ruskin, ever religious, spoke of beauty as being "spiritual" and "typical of divine attributes"—which means much or little according to accent. Benedetto Croce also was religiously bent when he declared that "beauty does not belong to things; it is not physical; it belongs to men's activity, a spiritual energy; it is imaginative intuition as opposed to logic."

Darwin changed the bias of such definitions from the religious and metaphysical toward the biological. "The taste for beauty," he wrote, "is probably confined to the opposite sex." Consequently, we today have such biological definitions as that of Will Durant, who thinks that beauty has its origin in sexual desire; . . . "that

it arises as an offshoot and overflow of that desire." Other semi-biological definitions, such as those suggesting that beauty springs from an excess of energy that results in play, or as Santayana's, that "beauty is pleasure objectified," may be taken as stemming from Darwin or, perhaps, even from the theory of Leibnitz that "the sense of beauty is our sixth sense."

All of the foregoing definitions, when examined, point to the one crucial question of the origin of beauty and to whether its origin is empirical. And here it should be asserted once and for all that no question concerning the philosophical origin of any aspect of our experience can be finally settled until we settle the question of the origin of our experiencing selves—which means accepting or rejecting a belief in the hypothesis of a World Self. For the origin of all mental phenomena must be wholly empirical and confined to selves on this planet, unless the theory of the World Self be accepted.

But if there *is* a World Self, not one who has "created" us in its image as an artist a picture, but whose ability to think, will, feel, and grow we inherit, the situation is otherwise. For then we are able to answer the question of origin by framing a theory of aesthetic emotion, including that of the World Self, as universal as the theories proposed here for Psychology, Logic, and Ethics. We have offered reasons and shall later offer others for accepting the theory of the World Self. But the pragmatic value of assuming its existence as a requisite to solving the problems

of Philosophy will again be manifest here in the realm of Aesthetics.

That aesthetic emotion and creativeness on this planet have developed empirically through evolutionary time, of course is not to be questioned. It should be equally obvious, however, that the primal ability of selves to act "expediently" was from the beginning accompanied by a similar ability to feel the admirableness of expediency and, therefore, in some degree to feel and act aesthetically; and the origin of these abilities must either have come by evolutionary accident, which, as we have seen, is most improbable, or by inheritance from a World Self. If the latter alternative be accepted, the ability to feel and act aesthetically would not only be empirical, but doubly so, as was the case with moral obligation; for it would have been inherited from a World Self, which was itself developing empirically, and from our developing selves through evolutionary time. Absolute empiricism, however, it must not be forgotten, is no more possible than any other absolute, especially if the universe is psycho-bio-physical and was from the beginning possessed of some degree of order and selfhood. For it is not enough to say with Plato and Aristotle that beauty resides in order and proportion. We must realize that the degree of order existing in the universe from the beginning gave the World Self some degree of aesthetic emotion from the beginning, since it is fundamentally from wonder at and admiration for some kind of order that aesthetic emotion is derived.

But before analyzing aesthetic emotion further let us come to closer grips with the question of the objectivity or subjectivity of beauty. If we are not prejudiced in facing the issue, we shall be compelled to accept the common sense belief that beauty is *both*, objective and subjective. The mistake we have made is in believing that exclusively it is one or the other. And this mistake has in turn been due to the familiar ontological mistake of asserting that the universe is either all mind or all matter. For the Idealist of course must hold that beauty is a purely mental fact, and the Materialist that like all else it is ultimately material and objective, since ultimately all subjectivity is itself material and no mind really exists.

Only in an organic psycho-physical universe would the question seem to be capable of any intelligible solution. There mind is immanent in matter, space, and time, and "things" are not merely physical and objective, but psycho-physical. In such a universe beauty could be objective as well as subjective, for both our experience and the outside world would be psycho-physical, and to say that beauty is objective would merely be saying that it exists in *psycho-physical* objects; that is, in objects in which there is mind. Therefore only if we are prepared to accept a psycho-physical universe with Mind immanent in all objects can we say that beauty is in them, therefore is objective. Moreover, accepting an organic psycho-physical universe means believing

that mind is in some sense physical and matter in some sense mental.

But, granting the existence of a psycho-physical universe, let us see what further steps will lead us to a solution of our difficulties. Those steps are:

First, we must unqualifiedly admit that beauty does not exist except for a perceiver. For though we may believe that material things exist unperceived, we cannot believe that beauty does.

Second, we must be equally ready to admit that the perceiver and his experience are psycho-physical, and that aesthetic emotion, an element of experience, is likewise psycho-physical.

Third, we must admit that if our experience is psycho-physical, we experience mind and matter *immediately*—the mind and matter of our bodies, which certainly are ontologically integrated with the rest of the mind and matter universe. For no part of matter can be conceived as ontologically separable from the rest of matter any more than a part of space or time can be conceived as ontologically separable from the rest of space or time, both of which we feel immediately. Furthermore, since we experience our bodies immediately and since they are parts of matter and so subject to the laws and forces of all matter, we must in some actual sense experience all matter immediately.

Nor can it be otherwise with mind. We experience immediately within us what we call our minds. But is it true, as Durant Drake says, that “there is no surer empirical fact than that there

is a chasm between mind and mind," and that we do not experience mind and therefore minds, immediately? It would not seem so, nor need we base disbelief that it is so on any telepathic or allegedly spiritualistic phenomena committing us to an avowal that minds or spirits communicate with each other without any physical intermediation whatever.

Rather, the following would seem to be truer. We do not hesitate to say we believe other minds exist outside of us—or that God does. But those who are inclined to subjectivism or radical empiricism hold that all we really *know* immediately is our own experience, therefore we may *believe* but cannot *know* that other minds, or any outside things, exist. But if that be the case, why do we *believe* absolutely that other minds exist outside of us? Should we believe it if we did not in some degree experience and *know* their existence immediately as they enter into and become a part of our experience?

Surely it is a mistake to think so. There is no way of *knowing* an ultimate reality, such as mind, except immediately, however much we may *learn* about it by inference. We should not even *believe* that other minds exist outside of us if we did not somehow know them immediately—though we must avoid thinking of them as merely mental in saying that. If, however, we are to say that we *know* other minds exist outside of us, not merely that we *believe* they do, how shall we conceive the relation between us and them in order to obviate the assertion of Drake that a chasm exists be-

tween minds, and, therefore, that we never know what is going on in them?

To answer we must first challenge as misleading the statement that we do not know what is going on in other minds, for it begs the question by implying that we do know *something* is going on and therefore that other minds exist. That we are ignorant of the details of what goes on of course is true: but that is hardly proof that the chasm between minds is absolute, either ontologically or psychologically. For, speaking ontologically, we can say that if our minds are psycho-physical and if their physical side is integrated with the rest of the physical universe, our minds likewise are immediately linked with it, and so with other psycho-physical minds. In other words, we are in some degree immediately experiencing them *in that direction*.

The problem is more difficult, however, when, *taking the other direction*, we start at the psychical side of our psycho-physical experience and ask if one mind can directly experience or communicate with another outside of it. We are doubtful then, first, because we forget that space across which any two minds would communicate directly is a psycho-physical reality as capable of transmitting waves to other bodies as our bodies themselves are; and, second, because we have not come to realize that all minds are parts of *one* ultimate reality, mind, as all portions of matter are portions of another ultimate reality matter. And apropos of this second reason, we can say that if we can know our own minds immediately, we must know

other minds so, for if not we should have on our hands the ontological situation of every mind being an absolutely separate and different kind of reality, which would be absurd. We must, therefore, believe that *ontologically* minds and the forces of mind are one, as portions of matter and the forces of matter are one.

And if that be true ontologically, it must of necessity be in some degree true psychologically. For if one mind is not absolutely separate or separable from another ontologically it cannot be so psychologically, since the minds involved are all parts of Minds and are merely being considered from different points of view. Consequently, there can be no absolute psychological "chasm" between minds, but only a limited separation between streams of consciousness. So if we accept the belief that we know our minds immediately, and that all minds are ontologically one, as all parts of matter are one, we must believe that in some degree we *psychologically* experience outside minds immediately. And that is partly confirmed by the fact that while our minds seem to be wholly separate streams of consciousness, we have a feeling that we are experiencing the existence of other minds even when we cannot fathom in detail what is going on in them. The telepathist not only experiences his own mind immediately, as we all do, but seems to be able to enter immediately into other streams of consciousness, as the mystic claims not only to have immediate experience of the World Consciousness but to apprehend definite aspects of it. Both seem able to

grasp the thoughts as well as feel the existence of other minds.

Therefore, to return to the question of the objectivity of beauty, if minds are psycho-physical and exist outside of us, and if they are experiencing beauty psycho-physically, and if we experience them psycho-physically, *and if finally all experience is somehow one ontologically*, we can *know*, not merely *believe*, that beauty exists in psycho-physical objects outside of us.

But what if the psycho-physical object outside of us is a landscape, say, not another self experiencing beauty?

In that case, if the universe is psycho-physical with the (psycho-physical) World Mind immanent in it but largely outside of us, we are experiencing something of the World Mind's aesthetic emotion as well as of our own, empirically developed. The landscape's beauty, which seems objective as well as subjective for us, is objectively there as an element of the aesthetic experience of the World Mind—which "perceives" it; though we must not forget that the perceiver and the experience are always psycho-physical, and, therefore, that an experience of beauty is *always* objective and physical as well as psychical. *Our* experience of a landscape's beauty perhaps would be but a subconscious or unconscious element in the World Mind's experience of it. For the World Mind, which is universal, could hardly be supposed to be seeing the landscape as we see it; though when I shall attempt, by psycho-bio-physical analogy, to analyze how beauty might develop,

if not originate, in the World Mind, I shall suggest that aesthetic emotion doubtless is always present in that Mind. Here the stress is merely on the point that if beauty is in the landscape, therefore objective, it must be so because the landscape is psycho-physical, its psychical side being the immanent World Mind's aesthetic emotion.

And that should be wholly understandable. For if the World Self, which includes our selves, experiences us immediately, we must of necessity experience It immediately. It cannot enter into and immediately sense our experience without our immediately sensing It; for immediacy of experience between minds must be mutual. We think of our bodies as belonging to the physical world and our minds to the mental. But if we and the universe are psycho-physical, we are not only integrated with it but it is integrated with us. Its Mind cannot penetrate ours immediately without having ours at least limitedly penetrate it. And, to repeat, it is this fact which makes objective as well as subjective beauty a possible conception, though in a psycho-physical universe no beauty can be purely objective or subjective. It must always be both.

But leaving this point and proceeding with the prerequisites necessary to conceiving how beauty can be objective, we must say:

Fourth, that if aesthetic emotion exists in the psycho-physical World Mind, so in the objective world, we, who inherit our selves from the World Self, must in some degree inherit its aesthetic po-

tential; a potential merged in us with, and developing with, the potential we inherit ancestrally. And we must say that the World Self's aesthetic potential has developed livingly and empirically *in it*, as our potential has *in us*. For we can hardly accept a World Self that is biologically integrated with the rest of the universe but which does not develop. From this point of view we are able to say that beauty is in the objective world, as well as in us; that it is both objective and subjective. Also, that if the World Self is immanent in the ultimate realities, time, space, and matter, which we experience immediately, beauty, an element in the World Self's experience, also is immanent in them.

Fifth, in experiencing aesthetic emotion from an outside object or scene, we must realize that we are having a psycho-bio-physical experience that is included in the experience of the psycho-bio-physical experience of the World Self, for all experience is ontologically one. Our experience is small and individual because limited to our bodily environment, but it is also universal, as has been urged in the Chapters on Psychology, Logic, and Ethics. It is conscious for us but probably unconscious for the most part in the World Self, unconscious, say, as each of our body cells is for us. The aesthetic emotion of the World Self generally would be concerned with its perception of the marvelous but mysterious order of the universe at large, and not constantly with our small sensings of beauty.

Sixth, all this should enable us partly to understand how an object or scene can give us a recurrent and constant sense of aesthetic emotion. We are always in some degree feeling aesthetically; that is, feeling that something is wonderful and mysterious, therefore admirably desirable; and that can be nothing other than incipient aesthetic emotion. To a vastly greater degree the World Self also, no doubt, is always feeling aesthetically. Consequently its aesthetic emotion would always be present in the objective world in which it is immanent. Its presence there psychophysically would be a permanent potentiality of aesthetic experience for us—that is, if we experience mind and matter immediately—a permanent potentiality for us to experience beauty objectively as well as subjectively.

In a time-and-space, psycho-physical universe it is absurd to speculate concerning the nature and development of the psycho-physical World Self without realizing that we must do so by analogical reference to *our* selves, which are the only selves we know. If we are going to exclude such anthropomorphism and say that the World Self is wholly transcendent and unknowable, we must admit that we have fallen back upon an agnosticism that will not even justify us in making *that* assertion; and to revert thus is to forego philosophical thinking entirely. We must, therefore, seek to analyze the psycho-bio-physical World Self and its aesthetic emotion in the light of our individual experience, however anthropomorphic that may seem.

The first chapter of this book maintained that the mystery of existence is as great for the World Self as for us; and we know that a sense of mystery and wonder is an inalienable element in the aesthetic emotion of any self. The third chapter maintained that order, which is something we admire and wonder at, has existed in the psychophysical universe from the beginning; that, in other words, whatever cosmology we accept, the universe did not start from chaos and accidentally develop its marvels. To this may be added that we not only admire order but that it is impossible for a sane mind not to admire it; for order is not merely a generic term for rhythm, proportion, and symmetry, which are words usually associated with the arts, but is a term useful for adaptive organization of any kind. Admiration of order, therefore, unquestionably is one of the elements of aesthetic emotion. And we can say, too, that the kind of order or organization we call biological—human beauty for example—elicits our strongest and most instinctive admiration; though, as will be pointed out, we shall seem too narrowly anthropomorphic if we accept sex attraction and desire as the ultimate source of all beauty.

The universe, I have repeatedly maintained, is a Continuum of time, space, mind, and matter, each immanent in the others and with Mind immanently conscious of them all. If this Mind-imbued universe can develop in us such instruments for our use in space and time as eyes and ears, doubtless it has developed for itself vastly more adequate means of apprehending time,

space, and matter; for these are the mysterious and irreducible realities with which it must forever concern itself.

Accordingly, if we accept any cosmological hypothesis, say the Nebular, we must admit that in a psycho-bio-physical universe the original atoms possessed an organic order. Whatever that order may have been, the World Self, aware of it, must have found it useful therefore wonderful and desirable from the beginning. It was something that enabled that Self to understand, control, and adapt itself to its time-space-matter environment, therefore must have induced aesthetic emotion and a desire to increase this order. In as much as the World Self is such a Self, a living, growing, and deliberately as well as instinctively developing self, not a fixed, static absolute "Creator," we must conceive of It as seeking to understand and master all the seemingly inexhaustible potentialities of its time, space, and matter environment. Consequently, we must conceive of It as developing aesthetic emotion whenever It has discovered or mastered any of these potentialities. For that aesthetic emotion in the World Self has developed from its sense of the mystery of its environment, from wonder at and admiration of the order of the universe, and from successful attempts to adapt that order increasingly to its use, is difficult to doubt. While, therefore, such slogans as "Art for art's sake" may have their practical value in inveighing against didacticism and Philistinism, they are of no philosophical worth. The value of beauty cannot be isolated philosophically from

the other values of life, and Willard Huntington Wright's statement that "the very nature of beauty is the reverse of utility" is, like so many of its kind, the reverse of true.

In attempting to analyze and further account for the World Self's sense of beauty, we can conceive that, having apprehended time, space, and matter as numerically divisible, It would have discovered the "laws" of mathematics; for that these laws were discovered, not invented, by the World Self, is but a corollary of our contention that the World Self did not create the universe but found itself a part of it. That Sir James Jeans and others of mathematical and astronomical bent should think of the World Self as primarily a mathematician, therefore is intelligible, quite as intelligible, in fact, as thinking of It merely as divine Mind or Love or Spirit.

We can conceive also that the World Self, in dealing with numbers, would be aware that numbers are only symbolical abstractions, not the actual concrete realities of the psycho-bio-physical universe. Consequently, the laws of Physics, which apply to atom and star alike, would have become apparent to It—for us in turn to discover. Likewise It would have apprehended all the laws ("statistical," if you like, in an indeterminate biological universe) of all the sciences and arts in so far as they are orderly. And its struggles with the triumph over its environment would give It that sense of moral and spiritual beauty which we ourselves experience. For we must not forget, in our narrow talk about the "artistic," that the sense of

beauty can be an aspect of any part of our experience, that there is no rare quality or ability of the psycho-physical self which does not produce in us, as it doubtless has in the World Self, aesthetic emotion. Whatever else we may say of beauty, we must say it is something that implies and exacts admiration, so the aesthetic emotion a mathematician feels in solving a problem may be as keen and authentic as that of a poet or painter in solving a problem of his art. For aesthetic emotion is not confined to the arts, as some writers on art seem to think. Indeed, most of the things that seem beautiful to us are not songs and symphonies, poems and dramas, pictures and statues. They are things that exist in nature and human nature independently of any deliberate conscious creativeness such as the arts produce. We have children, and talk of "creating" them, but that creating is wholly different to "artistic" creating in which we deliberately shape every line and feature of the product. Accordingly, that the World Self's evolutionary necessities may have brought to birth many beautiful, or monstrous, living things without actually and deliberately shaping them, is analogically obvious.

II

In our approach to aesthetic creativeness, which forms the second part of this chapter, Will Durant again must be quoted. Discussing sex as the "source" of beauty, he writes, "Sublimity is related to beauty as male to female; its delight comes not from the desired loveliness of woman, but from

the admired strength of men." And again, "It is in the appreciation of landscape that beauty wanders farthest from its source in love. Much of the joy which natural scenery gives us is due to masculine sublimity; but much of it comes from a restful beauty akin to the warm repose which every fair bosom promises."

Were aesthetic emotion confined to human and animal selves this interpretation might pass muster; though even then limiting the source of beauty to sex, however dominant sex may be in life, seems too narrowly conceived. If we choose, we may discard the hypothesis of a World Self and base beauty entirely upon human experience of it; but to call sex the one aspect of that experience from which beauty originates, and to fortify that opinion by carrying over maleness or femaleness into a landscape, seems at the least to be indulging in the "pathetic fallacy." That is so if beauty is merely subjective; and assuredly so if beauty is objective as well; for to regard the landscape itself as having maleness or femaleness hardly permits of serious consideration. Here again attention should be called to the fact that the custom of speaking of Nature as "She" and of God as "He" has been misleading; for the two are not always regarded as identical and we are often uncertain when speaking of them whether it is Nature as a whole or merely God, the Self of it, that is doing the "creating."

But, to return to Mr. Durant, even those of us who believe in a psycho-bio-physical World Self will hardly be likely to suggest that *its* aesthetic

emotion and creativeness are solely of sex origin. We could be justified in such a biological conclusion only if at birth we inherit nothing from the World Self but sex instinct. And if we believe the World Self has always existed, we may be sure that It has been concerned from the beginning with something more than reproduction, even could we assert that It possessed sex desire. Creativeness in it would have its source in the whole of its nature; in the growing, understanding activities and potentialities of its entire being. So to assume a narrower origin for its (or our) sense of beauty and creativeness can never satisfy us philosophically.

We are at fault also, it would seem, in using the word "creative" in two widely different but undifferentiated senses. At one moment we speak of Life, Nature, or God as "creative"—instinctively or deliberately, but always creating *living* things. At the next moment we speak psychologically of the kind of creativeness we call "artistic"; and today's artists especially insist that this kind of creativeness should not be merely imitative or "representative" of Nature or natural objects. To be "artistically" creative before a sitter or landscape, they say, a painter or poet must select or choose, eliminate and recombine the materials before him into a pattern which has an organized beauty other than Nature there presents. Yet despite the fact that this new "creation" is not alive, as Nature's are, the artist often declares it to be "superior" to Nature's.

What he means here of course is that his work is superior to the pattern of the landscape before him, not to universal Nature. For universal Nature (which includes the World Self) has created forms more artistically beautiful or ugly, and landscapes more sublimely or monstrously "artistic," than any human chisel, brush, or pen can achieve. But in saying that his art is superior to Nature there is one thing the artist must remember, namely, that however much he may avoid "representing" any objects in Nature, his art cannot discard the *livingness* of Nature. That much of Nature he *must* "*represent*," even if he is the most incorrigible Abstractivist. If his creative pattern does not give a sense of livingness it is not artistic. Therefore, we may say here that a work of art is functional as well as formal. It must be living therefore useful to life, not as Kant and Schopenhauer contend, merely "an object that is pleasing regardless of its use." For there is nothing that has ultimate value that is not useful to the self.

That the World Self is "creative" in *both* these ways we must believe—provided It is a biological Self; for it is the nature of selfhood to be thus doubly creative. The vital question for us, however, is whether (and in what degree) the World Self has "designed" the universe, or whether ultimately that Self has no more "designed" it than we have designed our own bodies. And to answer this question rightly we must first have decided whether the universe is indeed psycho-bio-physical from atom to infinity. For if atoms are psycho-

bio-physical, the whole universe is an organic living thing with the World Self immanent in it. If they are not, if, on the other hand, they are purely physical forces wholly outside the World Self, then the universe is a "designed" rather than living and growing one—provided it is not merely an accident.

We readily accept cosmological theories of Science, such as the Nebular Hypothesis. But do we, on second thought, really *believe* that hypothesis—believe that the universe was once a mere nebula of gases, without a Mind or Self or order? The accidental development of such a merely physical nebula into our present universe would, it need not be reiterated, be an almost incredible occurrence. And development of it as bound up with a living Self, would seem equally incredible did we not see, feel, and know the development of our own psycho-physical selves. Therefore, it seems possible to say with likelihood of truth that if the universe is psycho-bio-physical, its development has probably been due more to its inherent nature than to "design," a probability not to be ignored in our aesthetic theories.

That the World Self immanent in time, space, and matter, in seeking to master them would have found its mysterious ability to design both useful and beautiful, we can believe. The forces exerted by that Self's inherent nature, or by its "designing," therefore may afford us some glimpse of an explanation of the marvelous, and often monstrous, forms Nature throws off. That the World Self with these forces may in a measure

have "designed" a landscape as well as the pattern of the starry heavens, is not wholly incredible, however improbable, provided that Mind immanent in matter has any real power over matter. So though we are right in not accepting the "argument from design" as it is often stated, but may prefer to believe that instinctive "creativeness" has forever been immanent in the universe, we cannot deny that the World Self probably also exerts an "artistic" creativeness such as we ourselves possess. But that artistic creativeness, or its result, must not be taken as non-utilitarian. To be really beautiful a work of nature or of art must be of some use to us or to the World Self. The difference between "instinctive" and "artistic" creativeness is not wholly functional; rather one unconsciously grows out of Nature and the other is at least partly and consciously designed within it.

Every real beauty of Nature or of art must, we know, have order and organization: on that point all are agreed. And that order or organization must be one of mind and matter in time and space, if the theory of Quadric Realism is true; for in a work of beauty or of art no one of these ultimate realities can be dispensed with. Try to take any one of them away from a work of art and it becomes inconceivable. At this point "Poetry's Genii," a theory of the "inexplicable" which I expounded in *Bridging the Years* must again be referred to.

Briefly put, the theory states, first, that the most mysterious thing in the universe is that any-

thing at all exists, and, second, that the next most mysterious thing is that the ultimate aspects of existence, as we see it, are time, space, mind, and matter, and that these four are incomprehensibly infinite. The inexplicability of a poem (or other work of art), the theory maintains, does not lie in mere matters of rhythm, rhyme, passion, imagination, etc., but in the way any poetic lines embody a sense of one or more of these infinities.

For instance, Shelley writes:

"Most wretched men

Are cradled into poetry by wrong,

They learn in suffering what they teach in song,"

and we say more or less casually it is poetry. But let Shakespeare write:

"After life's fitful fever he sleeps well"

and we say how marvelous, how inexplicable that is! What we have not realized is that one of poetry's "genii," the time-infinite, has here been at work. Those few simple words of Shakespeare give not only a sense of the tragedy of finite being, but a sense of our finiteness plunged into the endless unawakening of death.

For the development of this theory of poetry, not only with reference to the time-infinite, but to those of space, mind, and matter, the other "genii" of poetry and the arts, the reader must go to *Bridging the Years* itself. And since no critic or reviewer, English or American, has challenged the theory, it seems possible to say confidently that no so-called "inexplicable" poetic line may be found that is not explicable by reference to one or more of these fundamental infinities.

The practical importance of this conception to aesthetic criticism is immediately evident. What is of consequence to aesthetic *theory* here is that those four infinities are not merely mysterious infinities, but, as we have contended, the four ultimate realities of the universe. For that reason a double weightiness is given to such "inexplicable" lines. The more inexplicable they are, the likelier they are to embody a sense not merely of one but of more than one of these ultimate infinite realities. And that fact can be taken, it would seem, as further evidence of the rightness of the theory of Quadric Realism itself.

It has often been said that we can hopefully ask the *what*, *where*, and *how* of things, but not the *why*. This is true of beauty, as of other things, but only of them all when we ask the ultimate philosophical *why*—that is, why anything should exist at all. If we ask why any particular object or moment seems beautiful, we can analyze our emotion psychologically, and can even go further and give an answer of sorts to the penultimate question, Why is anything beautiful. We can say it is probably so because it has some kind of order, organization and usefulness which the World Self finds wonderful and mysterious, therefore admirable and beautiful. That our aesthetic emotion and creativeness wax and wane with the waxing and waning of our sex instinct may also be admitted; but that is only a partial statement of the "why," as we have said. For it is equally true that our aesthetic emotion waxes and wanes with other instincts and abilities, so that the argument

for the origin of beauty in sex alone is not overwhelming. But even were it so, and were we to ask *why* it is so *ultimately*, we could only answer that we perceive beauty only because it is the nature of selves to perceive it, as they perceive other things. Behind the fact that the universe is just what it is, a Continuum of time, space, mind, and matter, in which mind perceives itself together with the other three realities, neither we nor God can go.

As the objective existence of beauty is possible only upon the assumption of the existence of the World Self, we should define Aesthetics as *the systematic study of the emotion and creation of beauty in and by ourselves, or in and by the World Self, from whose psycho-bio-physical world order it ultimately originates.*

CHAPTER VI

THE EXISTENCE AND NATURE OF GOD

I

The assertion is sometimes made that religions can and do exist without a belief in God or in gods. It is usually made by non-theistic humanists or by others of non-theistic inclinations; and Buddhism, in a pure form, is often cited as an example of such religions.

This assertion would seem to be untenable if we are to have a satisfactory definition of what religion is, and particularly so if it is accompanied by an attempt such as that of Professor Julian Huxley to substitute a belief in some "principle of unity" in the universe for a belief in God—an attempt that Professor A. N. Whitehead seems partly to condone when he speaks of God as the universe's "principle of concretion." For since not one person in a hundred thinks of God as other than a Being endowed with the attributes of personality, confusion inevitably results from attempts to reduce Godhead to a mere philosophic "principle." Using such means to retain the name God while denying God's existence hardly can be considered as other than an evasion or an effort to cash in on the popular belief in God as a person.

Nor does citing Buddhism as an example of religions without deities seem to be more defensible. For the great majority of Buddhists do not follow the earlier and purer form of Buddhism, but forthrightly worship Buddha or some one of

his incarnations. Moreover, Buddhism on closer inspection will not be found to be merely "a way of escape from the trammels of existence," as it is described to be. Theoretically it must also be considered as an effort to escape from the creedal perplexities that plagued the religions around it—and that indeed plague all religions.

To be convinced of this consider Nirvana, the central conception of Buddhism. Nirvana is defined as a state of bliss into which the believer hopes to escape from existence. Under analysis, however, this conception seems to conceal two others; first, escape from stating whether there is an afterlife and if so where that life is located; and, second, escape from avowing whether a deity or deities exist before or after Nirvana is attained. For in Nirvana existence, God, and the afterlife are dissolved into this "state of bliss," which is said to be impersonal therefore leaves no room for the personality of either God or man. Human personality disappears as "illusion," so the question of a localized afterlife or heaven is avoided; for why localize it if there are no individual souls? Likewise the question of deity can be avoided; for why bother with it if this life is "illusion" and if in Nirvana no personality exists? Under such circumstances a God would not only be unrequired but unrecognizable as such; so whether He exists would not matter.

At the core of the doctrine of Nirvana there was and is another worm of contradiction, one which soon caused it to be handed over bodily to religious practices. We find ourselves unable to

conceive of a "state of bliss" which is not a state of consciousness, or of a state of consciousness which is not in some degree personal. Therefore, if Nirvana exists, the soul attaining it cannot be conceived as entirely losing personality. So the believer is left again with the problem of an after-life and of a deity still on his hands. And consciously or unconsciously recognizing this the great majority of Buddhists have naturally resorted to religious worship—with Buddha as the chief object of their devotion.

In the light of these considerations the doctrine of Nirvana seems after all to be but another form of the belief of mystics generally that it is possible to become one with God, except that in Nirvana both worshiper and deity are dissolved in a union which dispenses with a localized Heaven by itself being Heaven. And here it may be added that Confucianism, which has also been cited as a religion without a god, is likewise an unconvincing example. For despite the utterances of Confucius, which indicate that he did not wish his teachings to be taken as religious, the Confucian not only worships ancestors but seeks to propitiate demons.

If, then, we are to define religion rightly and delimit it from other beliefs, a similar flaw would seem to lie in the reasoning of those who seek to substitute for God some "principle of unity" in the universe—as did Plato and Aristotle, the first propounders of that idea. For how shall we describe such a "principle of unity," provided it exists? In physical terms, as a purely physical

force? If so are those who speak of it as "unifying" or "ordering" the universe not unconsciously attributing to it mental agency of some sort? And if it is a purely physical principle, can they tell us how a wholly physical "principle of unity" can be any more conceivable than we found a wholly physical order in the universe to be? Would not such a "principle of unity" be but another name for that order?

On the other hand, if this "principle of unity" is a psychical or psycho-physical force or agent, it must have some degree of personality. So we no more do away with the idea of God by calling Him a "principle of unity" than could Buddhism by dissolving Him in its "state of bliss." Both merely reduce Deity to an abstraction. And if we persist in calling such a "principle" God, our purpose in doing so can only be to mollify the religious believer or, as we said, to make capital of the popularity of the name of God.

Surely it is wiser and simpler to reserve that name for a World Self or Person, and the word religion for those attitudes of love, reverence, fear, and worship, which so many millions of humanity have been in the habit of assuming toward the deities they believe in. A "principle of unity" which is not God but acts as if it were is but another of the metaphysical evasions that so constantly betray Philosophy. To be on firm ground we must say that no mere principle of unity, whether it be physical, spiritual, or volitional, as Schopenhauer would have it, can adequately account for the orderly facts of the universe as we

see them. Only the total personality of a psychobio-physical World Self would seem to be able to do so. For if God, that Self, immanent in and coordinate with time, space, and matter, the other ultimate realities of the universe, cannot be reduced to them, He certainly cannot be reduced to any abstract "principle of unity." Moreover, if our previous reasoning has been right, we should remember that whatever unity exists in the universe has not been wholly "created" but partly has existed there from eternity—unless it is merely accidental; though why this is so neither we nor indeed God can say. It is merely an ultimate fact of existence behind which it is impossible to go.

The fundamental question of religion, as the heading of this chapter indicates, is the question of the existence or non-existence of a World Self or God. Through the centuries many types of argument, legitimate and illegitimate, have been thrown into the discussion of God's existence, and the battle on both sides has been partisanly bitter. Cynical assertions, such as that "God made man in His image and man has returned the compliment," or as Voltaire's that "if God did not exist man would have had to invent Him," have been met on the opposite side by creedal dogmas equally lacking in logic and totally lacking in humor. And between the two extremes we have had appeasing philosophers who, like Durant Drake, avow that "the important thing is not to assert the truth of God's existence but to feel His reality and be dominated by it." Or we have prag-

matic assertions such as that "a religious theory is as legitimate as a scientific one if it always gives the results," the implications of both these assertions being that we must accept faiths as true if they are valuable, if they work, even though we do not believe them. And that would have a canceling result. For not only would it permit of our saying that a widespread desire for and need of God is evidence of His existence, but also that a widespread distaste for believing in His existence is evidence that He does not exist.

Discarding the mere prejudices of both sides, it would seem that only two sorts of evidence are allowable in discussing the question. The first is whether we actually can and do experience God immediately, as many have asserted; the second, whether in our reasoning we must adopt the conception of a World Self or God if we are to offer any logical or trustable assertions whatever about the universe. And here, recalling what we said in the chapter on Logic concerning the correspondence between the outer and inner worlds, or, in other words, between things and our ideas of things, a remark of Bertrand Russell's is pregnant. "Every proposition having a communicable significance must be true of both worlds or of neither."

Consider the second of these two sorts of evidence first—and historically. In primitive times the existence of deities was merely assumed, for how otherwise could the unknown and invisible powers at work in Nature be explained? In the Middle Ages of Europe the inference was changed.

Men accepted the existence of God on the supposedly "supernatural" authority of the Bible, though additional beliefs, which ultimately culminated in Paley's "argument from design," from time to time, were advanced to reinforce Biblical "revelation."

When, however, the argument from design was overthrown, largely at the hands of the theory of Evolution, the question of God's existence was once more left wide open. The conception of an omnipotent, omniscient Designer outside the universe or at best immanent only in men's souls, could not stand up. For such a Designer or Creator would necessarily have to take the responsibility for having created evil as well as good. Moreover, neither the belief in such a Designer nor in any God whatever seemed possible at first to evolutionists; though later the attempt was made to resolve the conflict between orthodox Religion and evolutionary Science by saying that Evolution was merely God's method of doing things in Nature.

It was not possible, however, to rest there. Inevitably the question came whether God and His method Evolution are one. If not, it was asked, how does God use His method Evolution if He is not actually immanent in it, therefore in all Nature? Or, if He is thus immanent, how shall His immanence be conceived by Science and Philosophy? In what physical, psychical, or psychophysical terms?

In facing this question I think some philosophers and scientists have concluded too dogmati-

cally that neither Science nor Philosophy can prove or disprove the existence of God. Some of these thinkers have been content merely to deny that God exists, while others with equal complacency aver His existence, but vitiate their belief by saying that He exists so transcendently that our finite minds cannot hope to prove it. To fall back thus on transcendental realities beyond the knowable realities of time, space, mind, and matter, is but to assume, not to convince, nor even to offer evidence. If, therefore, Evolution is to be called God's way of doing things in Nature, God must be conceived as immanent in Nature, therefore to be at least as knowable and provable as the rest of Nature. In other words, if we believe both in a dynamic Evolution and in God, we must believe in the immanence and oneness of both in Nature.

These pages have presented many reasons for believing the universe is psycho-physical or psychobio-physical, therefore for believing not only that we immediately experience mind (the Mind of the World Self) everywhere in the universe, but for believing that we could not experience time, space, and matter, the rest of the universe, were they not *psychical* as well as *physical*. Also I have presented many arguments for believing that without the conception of a World Self or God we have no means whatever of making trustable universal assertions; that, in fact, the only final test of the validity of such assertions is whether they can and must be conceived to be valid also for such a World Self. If they cannot, there can

never be any certainty that such truths may not be mere biological illusion, even when we test them inductively by observation or experiment. But finally, before leaving the question of the existence of a World Self to consider its nature, a resume of my argument for its existence should be made; though as a preliminary to this resume we should remember that, as was shown in the chapter on Logic, we must believe that minds are capable of making true judgments, or else all thinking about the universe is futile.

In chapter one I denied as untenable the triple assumption that the universe has sprung from one ultimate Reality which our minds are incapable of knowing and which God alone can know. Our reasoning was that we must believe there are four ultimate realities, time, space, mind, and matter, which have been coexistent and coordinate from the beginning. In this chapter also I gave reasons for averring not only that mind is *one* of these realities but that everywhere it is linked inseparably with matter; that whether or not we believe "the heavens declare the glory of God" we must believe that atoms immanently indicate His existence. For if we believe our body cells are conscious, we must believe that our body atoms also possess some degree of consciousness, therefore that consciousness must exist everywhere these atoms exist, in organic or inorganic matter. And this universality of consciousness in matter, I contended, can only mean the existence of a Cosmic Consciousness as an ultimate reality. In confirmation of this also I reasoned that a true definition

of what an ultimate reality is must include, among other things, that it is a reality we can and do experience immediately and that may be so experienced anywhere and everywhere in the universe. The only things we do so experience, it was then contended, are time, space, mind, and matter, all of which are infinities. That the universe was derived from absolute mind or matter, or, as S. Alexander would have it, from absolute time and space, therefore was denied. No one of the four, I maintained, conceivably could have been derived from any other.

The importance of regarding mind as one of the ultimate realities appeared in chapter two. Seeking for a covering hypothesis for psychological phenomena that would be as useful to Psychology as the atomic theory to Physics, I suggested that no such hypothesis is possible unless there is a World Consciousness. For manifestly a hypothesis for Psychology as universe-wide as the atomic theory for Chemistry can be framed only if psychological facts are universally existent. The hypothesis framed was that *Every experience is psycho-physical and that the only element always occurring in any experience anywhere in the universe is an immediate sense of time, space, mind (the World Mind), and matter, a sense on which all knowledge of the universe must be based. And as these four form the Continuum of the universe beyond which nothing can exist or be known, all experience must be immediately of or inferential from these four realities and of nothing beyond them.*

And just here an assertion should be made. As the hypothesis given above was partly based on a belief in the existence of the subconscious mind, it is reasonable to suppose that if a World Consciousness exists, It would have a Subconsciousness, and that it is this Subconsciousness which is immanent in all atomic Nature including the atoms of our bodies. *With* this universal Subconsciousness, it is also reasonable to suppose, our subconscious minds are integrated. We are born with it immanent in us as with our specific ancestral make-up, which make-up would indeed stimulate it to become conscious and thus give rise to our individual selves. This conception of a Universal Subconsciousness immanent in all atomic Nature makes the conception of a Universal World Consciousness more comprehensible and so gives further credence to it.

But to return to my resume: the third chapter, seeking a theory for a unified Logic, said that in dealing with Logic, which is concerned with the inference processes of experience, we must not forget that these processes have grown out of our immediate sense of the four ultimate realities therefore can give us *real* knowledge of the universe. Second, it said that no trustable assertion about the universe at large can be made unless the order in our minds corresponds with that in the rest of Nature. And third, this chapter urged that no such correspondence is possible unless both these orders are psycho-physical, which would necessitate believing that a Universal Mind exists in Nature. This belief in turn, I contended,

would mean that the laws of mind (or Logic) are also laws of Nature.

The general conclusion in this chapter was: *That a truly universal Logic is possible only if we agree, first, that the universe is the psycho-physical Continuum of the four ultimate realities; and, second, that we, also psycho-physical, are thereby participants in the Logic necessitating the World-Mind which is immanent in the universe. For not until we do agree to these conclusions can we make assertions about the universe that are trustworthy and that will correspond with the assertions the World Mind itself must make.*

My belief that the laws of mind also are laws of Nature found further support in the following chapter dealing with Ethics. For there I reasoned that Nature is bio-physical as well as psycho-physical and that in a psycho-bio-physical organism such as Nature is, its laws, including those of mind, must be psycho-bio-physical, not merely physical, as the physical sciences assume. And as a result of this I contended that the conflict in Ethics between the Empiricists and Intuitivists as to the origin of ethical obligation can be resolved, but only by accepting belief in a World Self whose sense of ethical obligation springs from the necessity, common to all experiencing selves, of developing expediently. For then the instinct to grow and develop expediently, an instinct the World Self has developed expediently and which we inherit from that Self, is an instinct which we in turn develop empirically. If the origin of this intuition or instinct is partly empirical in the

World Self, and if our development of it is empirical, it is an essentially empirical instinct even though it is not derived wholly from our evolutionary earth experience. No ultimate conflict between the Intuitionist and Empiricist really exists therefore; so the conception of a World Self again helps us toward the solution of a difficult problem.

In considering ethical responsibility I found also the World Self conception useful. I interpreted our sense of what we call free will as springing from our sense of spontaneous growth in a psycho-bio-physical universe and contended that fundamentally it can spring only from that *incalculable* source. Therefore, belief in a World Self, which belief in a psycho-bio-physical universe would demand of us, also found support for this reason. Further, I urged that a solution for a similar fundamental problem in Aesthetics, the problem of the objectivity or subjectivity of beauty, necessitated our accepting a belief in a World Self. Moreover, in the chapter on Aesthetic Emotion and Creativeness I asserted that if we get rid of the idea of a *designed* universe, with an outside Creator designing it, and accept the idea of a psycho-bio-physical universe with a growing Universal Self in it, we can hope to justify our ineradicable belief that beauty is both objective and subjective. *For if beauty can exist only for mind, and if there is a Mind (the Cosmic Mind) immanently experiencing beauty in the outside world: and if also we immediately experience that Mind, which is immanent in everything,*

we can experience beauty objectively as being "out there." Only by such a belief in the psycho-bio-physicalism of Nature can the problem of the objectivity and subjectivity of beauty ever be solved.

All the foregoing arguments for the existence of a World Self, have however, been inference arguments only, therefore evidence of the second sort mentioned. But repeatedly I have said that inference knowledge of reality can be based only on an immediate experience of reality, and that the only immediate experience of reality we have is of the ultimate realities time, space, mind, and matter. Do we then have immediate experience of Mind outside of us, and if so, what conclusion can be drawn from that fact as to the nature of God, the infinite World Self?

That the arguments of this book for believing that everywhere we immediately experience mind—the World Mind—as an ultimate reality have been presented without any religious or philosophical prejudice, I think will be conceded. Consequently, by adding a further argument here for this belief, I shall not be charged with indulging in mere religious mysticism. To such a charge, if made, the answer will be that unless we are prepared to accept the doctrine of radical empiricism, which avers that we know nothing immediately except our personal experience, we must admit that we experience the ultimate realities time, space, mind (the Universal Mind), and matter immediately. And we may reinforce this answer by asking, Does any one *really* accept

the subjectivist doctrine of radical empiricism which asserts that we do not in any way actually experience the outside universe, but merely *infer* its existence? Is it not incredible, if we believe the universe really exists, that we should have *no* immediate knowledge of it, but only knowledge of our personal experience? If we are honest with ourselves are we not really as sure that the universe exists as that our experience exists?

It is indeed upon the fundamental assumption that the universe exists that our experience is built up; for what would our experience be without the assumption of the existence of time, space, and matter? Should we so much as be able to make a distinction between immediate and inferred knowledge? If we do not know *both* ourselves and the outside world immediately could we know either? Even to have concepts, as objects of thought, must we not have immediate experience of the outside world from which those concepts have been formulated? If we have *no* immediate knowledge of the outside world should we not be separated from it *ontologically*? To be integrated with it all must we not in some degree have immediate awareness of it? And if we are not integrated with it through immediate awareness, is it not a mere supposititious metaphysical entity about which we are not entitled to make any assertion that would give it any describable content?

The assertion that we know only our own experience is indeed on a par with assertions that matter springs from mind or mind from matter. If we say we believe either, we should be able to

believe anything however improbable. To accept our experience as the sole reality we know is indeed like accepting the pre-Copernican idea that our small earth is the center around which the infinite stellar universe revolves.

What we should say is that to have any experience at all we must have immediate experience of time, space, and matter, as well as mind, and that these four are ultimate, infinite realities. This means that we would have immediate experience not only of cosmic matter but of Cosmic Mind; hence experience not only of the Subconsciousness of that Mind as immanent everywhere in Nature, but, in some subtle sense, experience also of its Consciousness. For we must admit that if Evolution is a purpose as well as a process, and if the testimony of scientific as well as of artistic and religious mystics is to be considered, what seems to be inspiration is not a direct momentary personal revelation by the Cosmic Mind but an immediate apprehension by the human mind of the processes of the Cosmic Mind immanent in Nature, which includes that Mind. Nor should any pseudo-mysticism, of the merely imaginary or subjective sort, prevent us from admitting this.

What we may conclude, then, is that we have no reason for believing we know our own experience immediately unless we also know the outside world immediately; and that, if the outer world is known immediately it must be psychical as well as physical; in other words, that it has a Cosmic Mind immanent in it. Sir Arthur Eddington writing of the "subjective" side of the physical

world and of "unobservables" says, "when an unobservable is introduced into a statement which professes to be an expression of physical knowledge, the statement is usually rendered false." And if *mind* is such an unobservable in Nature, we urged that attempts like that of Professor Einstein to express the universe in a single mathematical "field equation" must always fail. The universe is psycho-bio-physical and the Mind and Life immanent in it cannot be expressed in the exactitudes of merely physical terms. It is the growing Self in the universe that makes it, as quantum physics believes, a universe of "statistical probabilities," a fact which that theory of physics should itself recognize.

II

Now let us consider the "nature" of God. If we admit the existence of God, the World Self, we must, in giving our reasons for doing so, at least have partly implied what we believe God's nature to be. Perhaps we can proceed here in no better way than by examining religious conceptions of God as they are embodied in such doctrines as those of Omnipotence, Omniscience, Providence, worship, sin, evil, and immortality.

It is at times asserted that God must exist because of the universality of the religious instinct which has always impelled men to worship something. To this another assertion often is added, namely, that only an omnipotent, omniscient God is worthy of worship, and that it is stupid to believe in the existence of any other kind.

The falsity of the first of these assertions is too evident to require attention. I need only point out that there are many who contend for the exact opposite, namely, that no god at all should be worshiped because every imaginable thing on our planet has been worshiped.

The second assertion that only an omnipotent, omniscient God is worthy of worship is of more consequence, not only to Religion but also to Philosophy. Widely held, this assertion is one of the most destructive made by present-day Religion, one that plays more into the hands of a specious atheism than any other. For to worship and admire a God who with His omnipotence has created a world in which unlimited pain, degradation, disease, and catastrophe are rampant, is either to be religiously biased or ethically insensitive. Nor can such a belief be excused by saying that it is possible to sublimate our suffering into spiritual strength; that it is for this reason we are permitted to suffer. For it is an indubitable fact that much of human suffering is not thus sublimated, but results in degeneration. And it is equally undeniable that *Omnipotence*, had it chosen, could have devised a way to make us develop spiritually through joy rather than pain. That we do grow by joy, as a flower grows to beauty in good soil, we know. So when Professor Julian Huxley writes: "Pain is a biological necessity. Without physical pain there can be no adapted life, no progressive evolution. . . . Without mental pain there could be no mental progress," he is overstating the case, and in mak-

ing that assertion was certainly not thinking of the world as it might have been made by Omnipotence with joy instead of pain as the evolutionary stimulus. Every assertion of the existence of an omnipotent God in a world as dreadful as ours therefore is a destructive blow against religious belief, and indeed against "the ultimate victory of good in the world," which, as William James says, is "the most important of our beliefs."

The world being what it is Religion, therefore, should strongly deny that only an omnipotent God is worthy of respect and assert instead that only a God who is not omnipotent can rightly be revered by us; only one who, immanent in the universe, struggles as we do with the intractable and often overwhelming forces and complications of time, space, and matter. We must choose between believing in an anthropomorphically limited God or succumb helplessly to atheism or total agnosticism. Moreover, we should remember that Omnipotence and Omniscience are at best but quantitative characteristics, while goodness, beauty, and truth are qualities. To reverence and worship absolute Might, which, though it should have created a universe free of misery and degradation, failed to do so, is beneath even our undeveloped moral stature. In truth, the doctrine of Omnipotence is causing Religion to pull down the temple of faith on its own head.

Inseparably linked with the tenet of Omnipotence and Omniscience is that of divine Providence, particularly of a special Providence which is not only concerned with the general welfare of

the world, but with the "fall of every sparrow." For, since the implication of that tenet is that God, if He chooses, providentially can prevent any sparrow's fall, the anguish of the world must be laid at His door if He does not prevent it. For to say that God has passed the responsibility to us by granting us free will, certainly will not excuse Him from permitting calamities that are *not* due to our "sin."

Belief in a special Providence for the individual is, of course, on the wane. But is there a sense in which we can retain belief in a general Providence concerned with the general welfare of humanity? Once I wrote the lines:

When I was far from the sea's voice and vastness
I looked for God in the days and hours and seasons.
But now, by its large and eternal tides surrounded,
I know I shall only find Him in the greater swing of the
years.

But were those lines merely the reflection of poetic desire and unintentional religious inclination, or is it possible to believe that what might be called a kind of Providence may indeed exist in "the greater swing of the years"? Does human development afford any convincing evidence for such a belief?

The answer is "no" if we believe there is a God who, having *created* the universe, has established its laws, and who, therefore, can break or suspend them at will. For we see that in the critical moments of human history such a God fails to appear unequivocally and act, or, if He seems at such times to act, does so only after too much suffering

has vitiated His intervention. But what if we believe in Evolution and a psycho-bio-physical God? May we not say then that Evolution, which is God's developing mastery of time, space, and matter, is a kind of Providence which is prevailing over the "greater swing of the years"?

Many religionists, as we know, still oppose the doctrine of Evolution, seeing in its idea only the belief that men have descended from monkeys. Many convinced evolutionists, on the other hand, see in Evolution a process only; one that, if it is universal, carries with it no implication of progress or permanency; that, in fact, may vanish from the universe as reasonlessly as it came.

But what if we view Evolution as the progressive development of a psycho-bio-physical universe which has a conscious Self? Would not a belief in Evolution then be identical with a belief in an immanent though not omnipotent Providence striving for growth and progress in the universe and, consequently, for our growth, progress and well-being? The knowledge that Nature is "red in tooth and claw" need not be a refutation of this suggestion provided we disavow belief in a meta-physical Omnipotence. The state of the psycho-bio-physical universe and of all that occurs in it are not to be attributed entirely to what its immanent Self *desires*. What that Self must *accept*, if It is not pantheistically omnipotent, as Spinoza would have it, must also be considered as an element in the problem of Nature's so-called "cruelty."

If I was right, therefore, in maintaining that Evolution cannot be a merely physical process, but must be a psycho-bio-physical dynamic order, we must consider it as but an aspect of the World Self's acting expediently, and in that respect providentially, for Itself and for us who participate in its organic Being. If there is any Providence, it lies in the welfare we constantly derive from the growth and development of the World Self and of ourselves, not from the intervention of an external Creator suspending laws of Nature which he has established.

From this inevitably it follows that if the World Self is not omnipotent, It cannot be perfect. Perfection or a sense of perfection is impossible to a Being who is limited, as the World Self is, by the rest of the universe; and indeed were God, that Self, perfect, He would be but a squirrel in the cage of the universe whose monotonous movements would be mechanical and meaningless. The universe, therefore, must be in some measure incalculable to God, who must consequently fail at times to fathom or master it expediently. Only a mechanical self can be conceived as perfect, and a mechanical self is a contradictory conception.

And it is here, in this, that we may find a satisfactory meaning for what we call sin. Evil in the universe is that which operates against the expedient growth and development of the World Self and so of ourselves; and our sense of sin, which is a realization that we have gone against what we believe or suspect to be expedient for our growth and development, is a kind of evil for

which we believe ourselves responsible, or for which we believe God or society will hold us responsible. The sense of regret or remorse which we call sin therefore is not impossible to God who, like ourselves, is imperfect in His masterings. Even the orthodox Christian must accept the fact that if Christ suffered God suffers. No orthodoxy can prevent us from seeing that, or from remembering that if Christ is God, He denied perfection to God when He denied it to Himself.

The idea of a perfect, omnipotent God, who has created the universe and set it going with us as free will agents, also is responsible for the wide rejection of prayer as worthy practice. It is because of this idea critics allege that prayer becomes mere obsequious pleading or groveling worship rather than reverent psychological or lofty spiritual admiration and communion — which, to be noble, is all that it should be at best. That prayer for spiritual values has a spiritual value whether it is or is not heard by God, they recognize; also, that reverence for what is higher than ourselves tends to lift us above ourselves. But, they say, what the religious often fail to recognize is that if God exists, and is as lofty a Being spiritually as even *we* can conceive, He would much prefer that we be so strong, independent and desirous of noble values that we need never importune Him, much less praise Him adoringly for granting what it is manifestly to His interest to grant. He can take no delight, it is said, in being worshiped for a perfection and omnipotence He manifestly does not possess or has not by strug-

gling acquired. We but make Him lower than ourselves by supposing He wants such worship.

That God hears each of the prayers, billions of them, that go up daily and decides which should or should not be answered, is, of course, inconceivable on any theory of probability. But what we can believe of the right kind of prayer is that if God is a psycho-bio-physical Being immanent in Nature, our aspirations for nobler growth and development enter into His subconsciousness as useful elements in His desire for growth and development; that all our strivings upward are thus an aid to His universal striving, as well as an aid to strengthening our own spirits. If Religion would adopt this view, of expressing aspiration in prayer without expecting any supernatural hearing *of* or response to appeals, it might well rehabilitate prayer in the minds of those who doubt or scorn it, yet who might use it as a spiritually valuable therapeutic aid.

We must believe, also, that if Religion is to get rid of what its opponents call superstition, it must discard the idea of the supernatural altogether. For if God is the immanent psycho-bio-physical Self of the Universe, He is no more supernaturally transcendent there than ourselves are transcendent of our bodies. He is as natural, as much a part of Nature, as are time, space, and matter themselves. So any prayer or aspiration would be, as we have said, a spiritual fibre or strain in the aspiration for growth and development of His whole psycho-bio-physical Being.

Proceeding further we may say that while a cell of our bodies instinctively aspires to health and survival, we are not conscious of this aspiration though it exists as an element of our subconsciousness. However, of the health or ill-health of a group of cells or of the whole body we do become conscious, as God may of the stresses of large human groups. The aspirations of Nazidom or of Christendom may be such influences within the World Self as would compel its attention personally, though we can only suppose that, so vast are the complexities involved. But it would seem safe to conclude that, if the World Self exists, the strains toward health or ill-health, toward good or evil, are registered in its psycho-bio-physical Being, and, therefore, that prayers may do more than bring psychological relief to those who aspire. They may strengthen as well the World Self's aspiration toward development and mastery of its universe environment, thus helping to promote evolution for it and for humanity. Of personal pleas to a personal God no more should be expected; though it should be made clear at this point that God may well be a Person without being considered as one who answers personal prayers. To escape considering Him as a Person it is not necessary to call Him a "principle of unity."

And in a similar way we must deal with the question of worshiping God. If it be true, as I have said, that it is impossible for God or man to fix *ultimate* responsibility on any self or to mete out *ultimate* merit, then no self in the universe, including God's can be said to be *ultimately* more

deserving than any other. Therefore, while we may reverence, love and admire the Self of God above all others, worship should not enter into our attitude. For if no truly noble human self would desire the worship of those who are as deserving as itself, surely God, if He is ultimately no more deserving than we, cannot want worship. Reverence, love, admiration, and communion, therefore, should suffice Religion as doubtless they suffice Him. Yet for those who need a stronger instigation to spiritual development, worship may be desirable and so excusable. It is only the belief that we are free will agents who have sinned which causes us to believe we are *ultimately* less deserving morally than God. We habitually suppose that He is perfect without having struggled to attain perfection, but that very supposition would deprive Him of superiority to us. He is the Great Aspirer toward the good, the beautiful, and true, and for that reason we can reverence and admire those qualities wherever we find them in Nature, human nature and the arts. But only for practical not theoretical reasons is worship of God justifiable. So while for practical reasons we may dispense rewards or punishments socially, we should never forget that such rewards are not final judgments of merit.

And here, apropos of our deserts, the question of immortality arises. In the western world generally we assume that every one wants immortality—as perhaps every one would if he could get the kind he wants on his own terms. But in the Orient there are hundreds of millions of Bud-

dhists who desire no afterlife—only escape from all living; and in China many millions more have no interest in a conception which seems so unrealistic. Perhaps a half of the earth's inhabitants neither want nor believe in the possibility of an afterlife as compensation for the inequalities and misery of this; though it is largely due to resentment of these inequalities that the conception of immortality has risen.

The question, however, is not merely whether God will give us immortality but whether He can. Were He the omnipotent omnivolent Creator of the universe, He would undoubtedly be compelled to, in order to compensate us for our unequal sufferings; and it would have to be an afterlife of happiness for all, but with more happiness for some, if a belief in free will is not permissible. Suppose, however, that God is not such a Creator, but that He is the immanent psycho-bio-physical Self of the universe, can we then believe that He not only is eternally self-subsisting but that He might give us, who participate in His life, eternal self-subsistence? Has He that much or that kind of power over the organism of the universe, over the whole time, space, mind, and matter Continuum?

If we accept the law of the conservation of energy as including the mental energy of the immanent God, we can see how God and the universe may be eternally self-subsisting. All energy in that case would be psycho-bio-physical and, when expended, reconvertible into vital forces. In that case, also, the second law of Thermo-

dynamics, asserting that the universe is wasting away in heat radiation, would not be negated, for the radiant waves would themselves be psycho-bio-physical and reconvertible. It is only when we conceive them as wholly physical that we imagine we can conceive the universe as being wholly dissipated. Also, we can say that if *we* are able to sustain ourselves for a lifetime, the Self of the universe might be able to sustain Itself for an eternity. For that the universe, including the World Self, could wholly waste away and become only an infinity of unorganized psycho-bio-physical atoms, would hardly seem reasonable. Consequently we must assume that an organized cosmos has always existed and always will; that it is not a wholly physical thing, but that mind and life, therefore order and organization, will continue to exist within it as they ever have.

But is it likely that the self-perpetuating World Self whose forces are constantly being expended and reconverted can and will perpetuate infinitesimal parts of it, such as we are—and not only perpetuate us but at the same time give us the happiness we demand if we are to live immortally? Once again that brings to the fore the question whether the World Self is Itself eternally happy. In an imperfect universe is perfect happiness possible to any self, human or divine?

We must remember that while all living things we know die, these things are but infinitesimal parts of the growing organism of the universe, which is not itself of necessity doomed to ultimate death because its parts die. The cells of our

bodies, billions of them, waste away constantly, but the psycho-bio-physical forces within us build new cells that enable us to continue life for some years. The World Self's ways of sustaining itself eternally may in a measure be discovered for our psycho-physical existence and enable us to prolong it greatly, for we are psycho-bio-physically integrated with that Self. But this is not what is meant or wanted by those who believe in immortality. They mean a God-given afterlife, localized somewhere, in which they can retain and happily develop their present personalities permanently. Precisely where such an afterlife is located, they cannot say. Certainly not on this physical earth or on any similar planet, nor on some other sphere floating in interstellar space. All of these places still would be subject to the handicaps inseparable from the physical. Is Heaven to be out of time and space, then, therefore out of the universe? That will not do, either. For if we could conceive of a place for immortals outside of the time, space, mind, and matter universe, which is all we know, it would be a place metaphysically unknowable, so unknowable that if we could assert its existence we could not assert anything else about it. Any such assertion would have to be in terms of time, space, mind, or matter, for we know of no other kind of existence. A metaphysical Heaven with metaphysical immortals in it is but another metaphysical delusion. The true welfare of Religion, or shall we say the welfare of a true religion, is no more promoted by

such a conception than by conceiving God as an omnipotent out-of-the-universe Creator.

A social and psychological examination of the conception of immortality gets us into quite as much trouble, as has often been shown. We say, for instance, that we want to see our loved ones in the afterlife, but are our loved ones to stay static there through the years until we come? If not, is the husband or wife who dies and develops after death going to take much pleasure in reunion with the wife or husband who has lived on here and retrogressed? An omnipotent God might arrange these matters; but an omnipotent God also might have prevented the necessity for such arranging to occur. And that brings us back to the original idea from which the conception of immortality has sprung; namely, that justice must be done by God to His creatures.

That idea, as I have said, would be valid if the universe were in the control of an absolute Omnipotence. But in a relativistic universe which God is striving to master it would not necessarily hold. In such a universe, where we are psychophysically integrated with God, the World Self, He might no more be able to give us immortality than we are to give the cells of our bodies the length of life or freedom from ill-health to which they instinctively aspire. It would seem, therefore, that if we are integrated with the whole universe of which God is the Self, we cannot in all likelihood be given individual immortality—nor of course can God be blamed for not giving it to us.

The nature of God then is that of a psycho-bio-physical Self organically immanent in the universe and striving to master it; therefore is not omnipotent or perfect. If such a living developing Self exists, we may conceive of Evolution as indicating not only a process in the universe but a progressive purpose of that Self, in which humanity shares providentially, as it were, through "the greater swing of the years."

If, again, all is changed in the World Self's growth and development; if physical forces are continually transforming it and being transformed within it, we, who are but as infinitesimal cells in its vast Life, hardly can expect to live immortally because of the inequalities of this life. That the World Self struggles to act expediently to prevent all undue suffering, we may believe, for it is to its physical as well as spiritual interest to do so, as it is to our interest, whether we are to live immortally or not, to act expediently under the laws of truth, goodness and beauty, which are a part of the order the World Self finds useful for its development. To believe otherwise is to believe that in returning the compliment of making God in our image, we have made Him lower than ourselves. And to make God lower than our highest conception of what we must aspire to be is what no religion can afford to do.

That this conception falls short of our desire for a deserved happiness and compensation, and, therefore, may disturb the faith of those who merely seek comfort in religion, is regrettably true. But has it not been said that the truth shall set us free?

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